Computer Algebra
Independent Integration Tests

Summer 2023 edition

4-Trig-functions/4.7-Miscellaneous/139-4.7.5-x^m-trig-a+b-log-c-x^n-^p

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CHAPTER 1

INTRODUCTION

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This report gives the result of running the computer algebra independent integration test.The download section in on the main webpage contains links to download the problems in plain text format used for all CAS systems. The number of integrals in this report is [330]. This is test number [139].

1.1 Listing of CAS systems tested

The following are the CAS systems tested:

1. Mathematica 13.3.1 (August 16, 2023) on windows 10.
2. Rubi 4.16.1 (Dec 19, 2018) on Mathematica 13.3 on windows 10
3. Maple 2023.1 (July, 12, 2023) on windows 10.
4. Maxima 5.47 (June 1, 2023) using Lisp SBCL 2.3.0 on Linux via sagemath 10.1 (Aug 20, 2023).
5. FriCAS 1.3.9 (July 8, 2023) based on sbcl 2.3.0 on Linux via sagemath 10.1 (Aug 20, 2023).
6. Giac/Xcas 1.9.0-57 (June 26, 2023) on Linux via sagemath 10.1 (Aug 20, 2023).
7. Sympy 1.12 (May 10, 2023) Using Python 3.11.3 on Linux.
8. Mupad using Matlab 2021a with Symbolic Math Toolbox Version 8.7 on windows 10.

Maxima and Fricas and Giac are called using Sagemath. This was done using Sagemath `integrate` command by changing the name of the algorithm to use the different CAS systems.

Sympy was run directly in Python not via sagemath.

1.2 Results

Important note: A number of problems in this test suite have no antiderivative in closed form. This means the antiderivative of these integrals can not be expressed in terms of elementary, special functions or `Hypergeometric2F1` functions. `RootSum` and `RootOf` are not allowed. If a CAS returns the above integral unevaluated within the time limit, then the result is counted as passed and assigned an A grade.

However, if CAS times out, then it is assigned an F grade even if the integral is not integrable, as this implies CAS could not determine that the integral is not integrable in the time limit.

If a CAS returns an antiderivative to such an integral, it is assigned an A grade automatically and this special result is listed in the introduction section of each individual test report to make it easy to identify as this can be important result to investigate.

The results given in in the table below reflects the above.

System	% solved	% Failed
Rubi	100.00 (330)	0.00 (0)
Mathematica	92.42 (305)	7.58 (25)
Fricas	55.45 (183)	44.55 (147)
Mupad	45.15 (149)	54.85 (181)
Maple	44.85 (148)	55.15 (182)
Maxima	42.73 (141)	57.27 (189)
Giac	27.27 (90)	72.73 (240)
Sympy	20.91 (69)	79.09 (261)

Table 1.1: Percentage solved for each CAS

The table below gives additional break down of the grading of quality of the antiderivatives generated by each CAS. The grading is given using the letters A,B,C and F with A being the best quality. The grading is accomplished by comparing the antiderivative generated with the optimal antiderivatives included in the test suite. The following table describes the meaning of these grades.

grade	description
A	Integral was solved and antiderivative is optimal in quality and leaf size.
B	Integral was solved and antiderivative is optimal in quality but leaf size is larger than twice the optimal antiderivatives leaf size.
C	Integral was solved and antiderivative is non-optimal in quality. This can be due to one or more of the following reasons 1. antiderivative contains a hypergeometric function and the optimal antiderivative does not. 2. antiderivative contains a special function and the optimal antiderivative does not. 3. antiderivative contains the imaginary unit and the optimal antiderivative does not.
F	Integral was not solved. Either the integral was returned unevaluated within the time limit, or it timed out, or CAS hanged or crashed or an exception was raised.

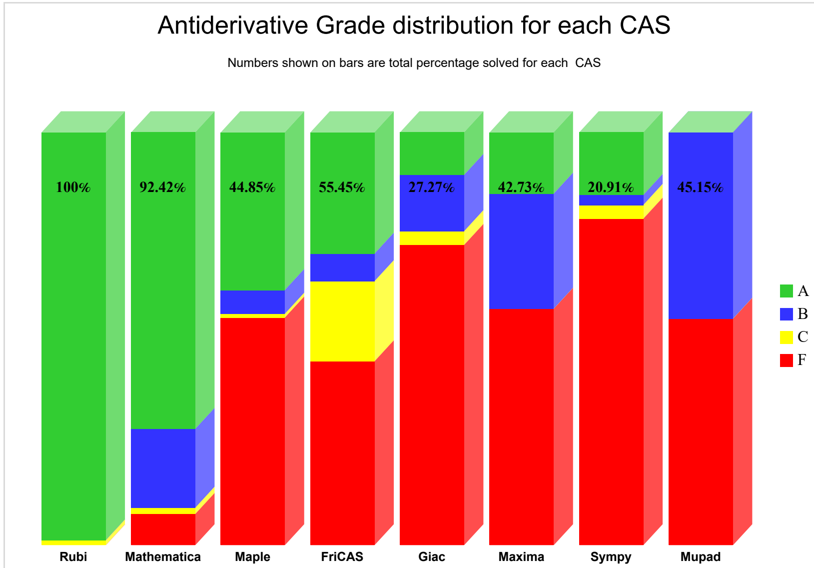
Table 1.2: Description of grading applied to integration result

Grading is implemented for all CAS systems. Based on the above, the following table summarizes the grading for this test suite.

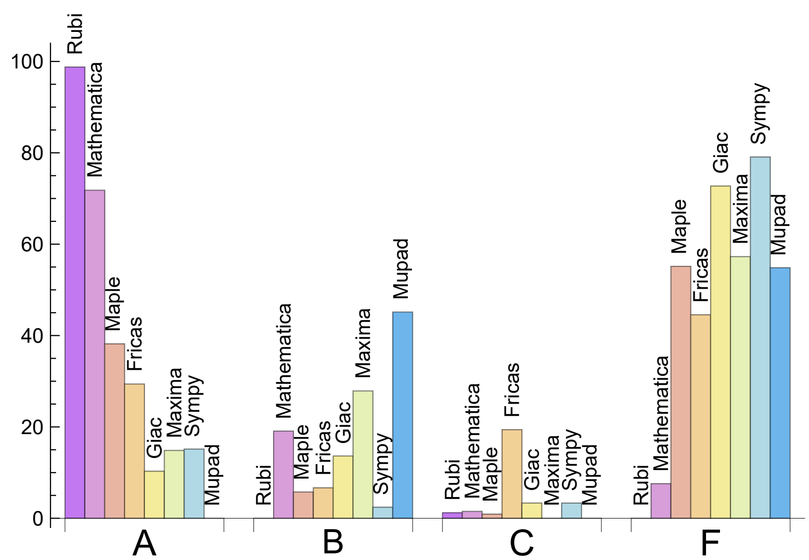
System	% A grade	% B grade	% C grade	% F grade
Rubi	98.788	0.000	1.212	0.000
Mathematica	71.818	19.091	1.515	7.576
Maple	38.182	5.758	0.909	55.152
Fricas	29.394	6.667	19.394	44.545
Sympy	15.152	2.424	3.333	79.091
Maxima	14.848	27.879	0.000	57.273
Giac	10.303	13.636	3.333	72.727
Mupad	0.000	45.152	0.000	54.848

Table 1.3: Antiderivative Grade distribution of each CAS

The following is a Bar chart illustration of the data in the above table.



The figure below compares the grades of the CAS systems.



The following table shows the distribution of the different types of failures for each CAS. There are 3 types failures. The first is when CAS returns the input within the time limit, which means it could not solve it. This is the typical failure and given as **F**.

The second failure is due to time out. CAS could not solve the integral within the 3 minutes time limit which is assigned. This is assigned **F(-1)**.

The third is due to an exception generated, indicated as **F(-2)**. This most likely indicates an interface problem between sagemath and the CAS (applicable only to FriCAS, Maxima and Giac) or it could be an indication of an internal error in the CAS itself. This type of error requires more investigation to determine the cause.

System	Number failed	Percentage normal failure	Percentage timeout failure	Percentage exception failure
Rubi	0	0.00	0.00	0.00
Mathematica	25	100.00	0.00	0.00
Fricas	147	66.67	0.00	33.33
Mupad	181	0.00	100.00	0.00
Maple	182	100.00	0.00	0.00
Maxima	189	98.94	0.00	1.06
Giac	240	67.50	30.83	1.67
Sympy	261	85.44	14.56	0.00

Table 1.4: Failure statistics for each CAS

1.3 Time and leaf size Performance

The table below summarizes the performance of each CAS system in terms of time used and leaf size of results.

Mean size is the average leaf size produced by the CAS (before any normalization). The Normalized mean is relative to the mean size of the optimal anti-derivative given in the input files.

For example, if CAS has **Normalized mean** of 3, then the mean size of its leaf size is 3 times as large as the mean size of the optimal leaf size.

Median size is value of leaf size where half the values are larger than this and half are smaller (before any normalization). i.e. The Middle value.

Similarly the **Normalized median** is relative to the median leaf size of the optimal.

For example, if a CAS has Normalized median of 1.2, then its median is 1.2 as large as the median leaf size of the optimal.

System	Mean time (sec)
Rubi	0.09
Fricas	0.24
Maxima	0.26
Giac	1.47
Mathematica	1.90
Sympy	7.18
Maple	13.54
Mupad	28.17

Table 1.5: Time performance for each CAS

System	Mean size	Normalized mean	Median size	Normalized median
Mupad	77.91	1.09	59.00	0.92
Rubi	102.68	1.02	96.50	1.00
Maple	106.45	1.52	59.00	0.94
Fricas	112.93	1.31	77.00	1.06
Sympy	138.71	1.76	54.00	1.24
Mathematica	150.57	1.54	127.00	1.23
Maxima	690.54	7.44	195.00	3.38
Giac	17104.24	69.33	159.50	2.56

Table 1.6: Leaf size performance for each CAS

1.4 Performance based on number of rules Rubi used

This section shows how each CAS performed based on the number of rules Rubi needed to solve the same integral. One diagram is given for each CAS.

On the y axis is the percentage solved which Rubi itself needed the number of rules given the x axis. These plots show that as more rules are needed then most CAS system percentage of solving decreases which indicates the integral is becoming more complicated to solve.

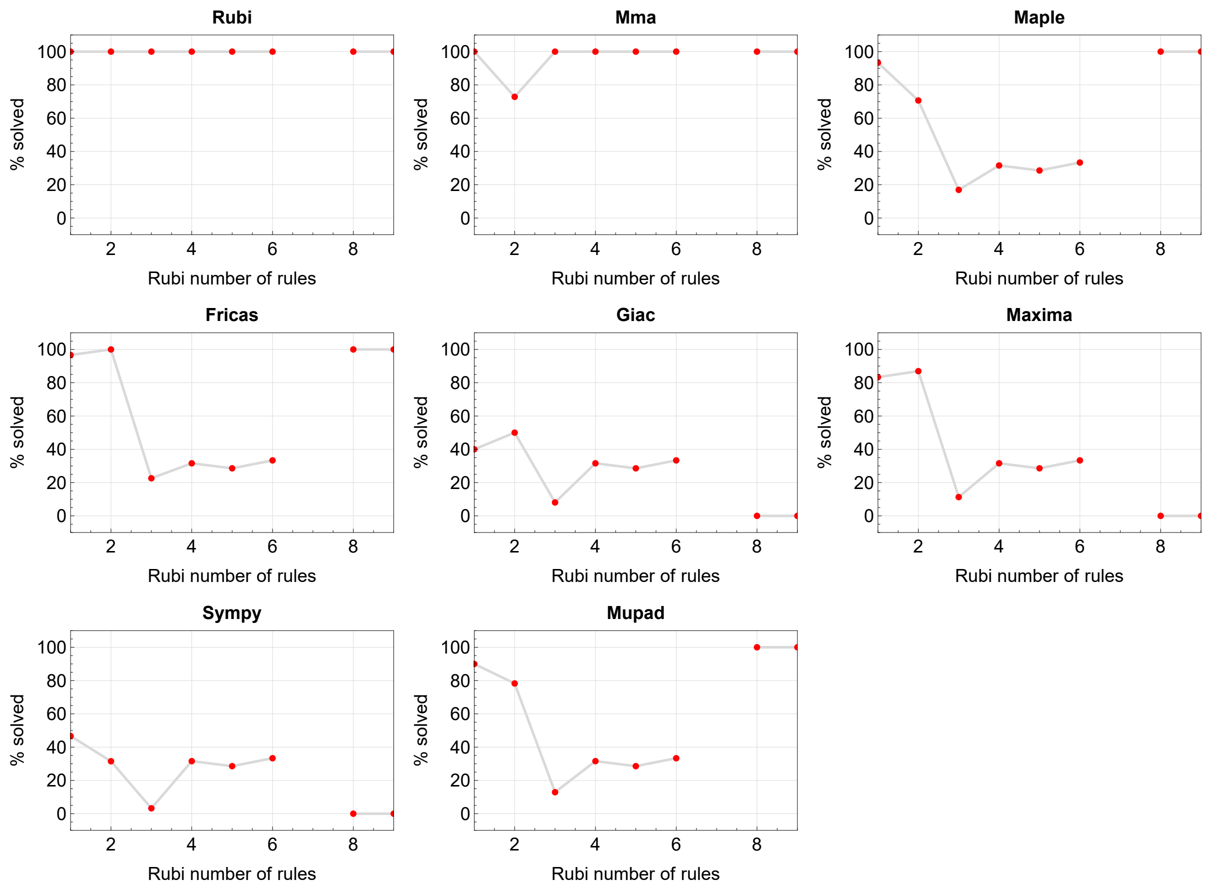


Figure 1.1: Solving statistics per number of Rubi rules used

1.5 Performance based on number of steps Rubi used

This section shows how each CAS performed based on the number of steps Rubi needed to solve the same integral. Note that the number of steps Rubi needed can be much higher than the number of rules, as the same rule could be used more than once.

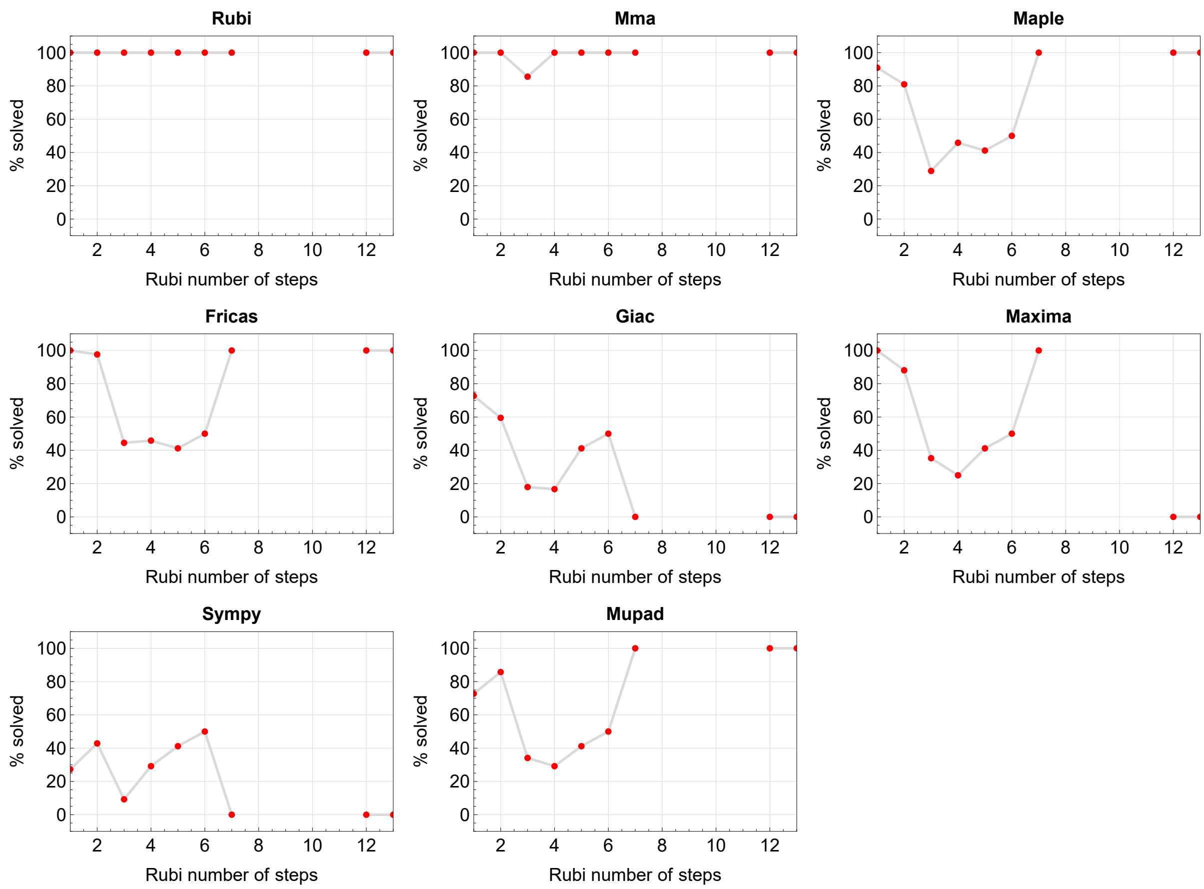


Figure 1.2: Solving statistics per number of Rubi steps used

The above diagram show that the precentage of solved intergals decreases for most CAS systems as the number of steps increases. As expected, for integrals that required less steps by Rubi, CAS systems had more success which indicates the integral was not as hard to solve. As Rubi needed more steps to solve the integral, the solved percentage decreased for most CAS systems which indicates the integral is becoming harder to solve.

1.6 Solved integrals histogram based on leaf size of result

The following shows the distribution of solved integrals for each CAS system based on leaf size of the antiderivatives produced by each CAS. It shows that most integrals solved produced leaf size less than about 100 to 150. The bin size used is 40.

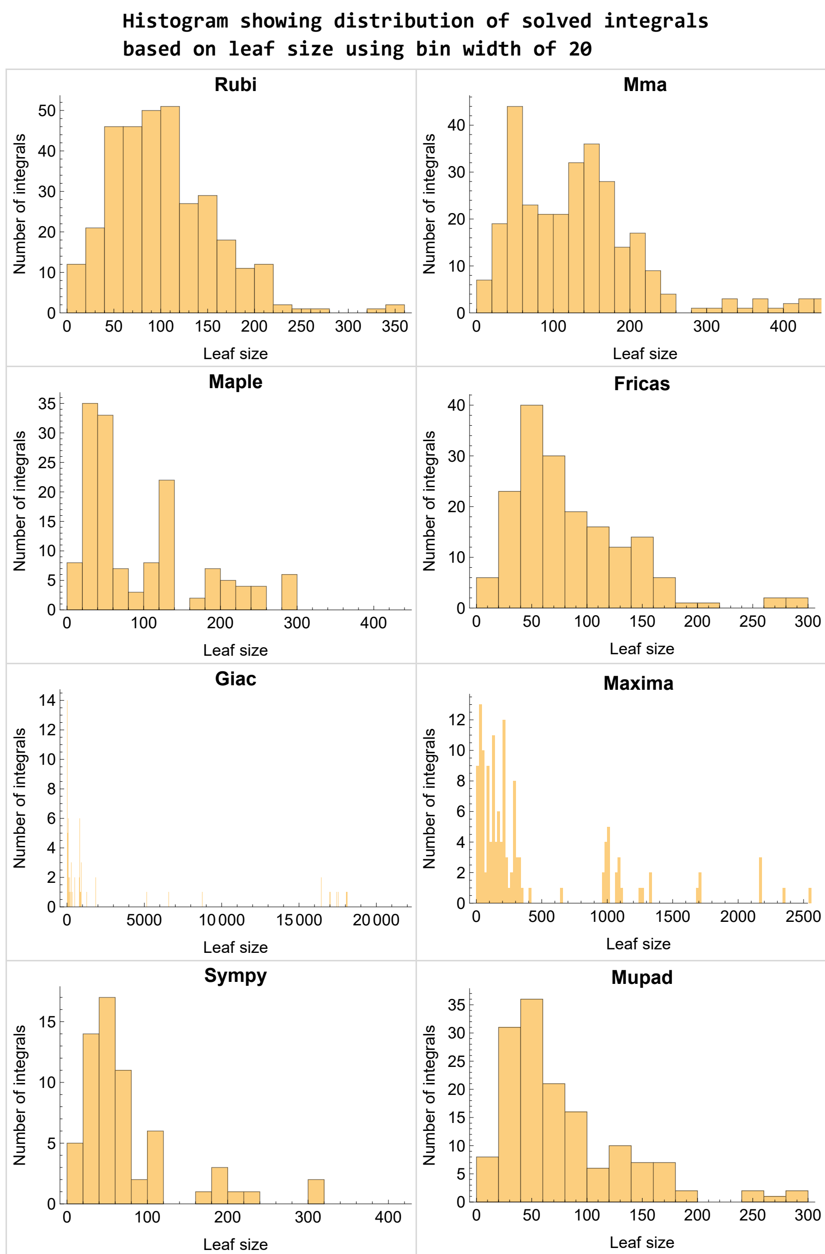


Figure 1.3: Solved integrals based on leaf size distribution

1.7 Solved integrals histogram based on CPU time used

The following shows the distribution of solved integrals for each CAS system based on CPU time used in seconds. The bin size used is 0.1 second.

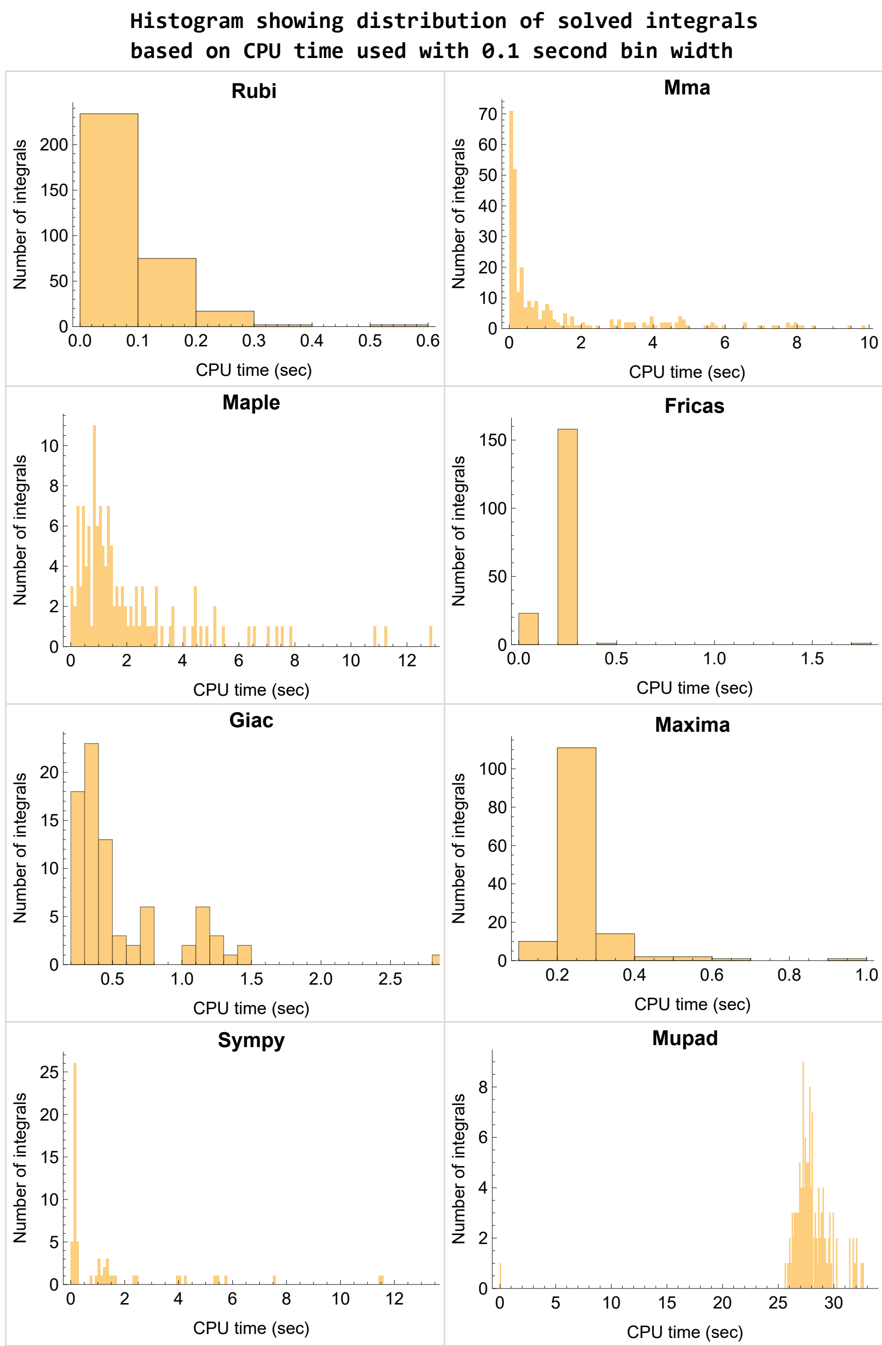


Figure 1.4: Solved integrals histogram based on CPU time used

1.8 Leaf size vs. CPU time used

The following shows the relation between the CPU time used to solve an integral and the leaf size of the antiderivative.

The result for Fricas, Maxima and Giac is shifted more to the right than the other CAS system due to the use of sagemath to call them, which causes an initial slight delay in the timing to start the integration due to overhead of starting a new process each time. This should also be taken into account when looking at the timing of these three CAS systems. Direct calls not using sagemath would result in faster timings, but current implementation uses sagemath as this makes testing much easier to do.

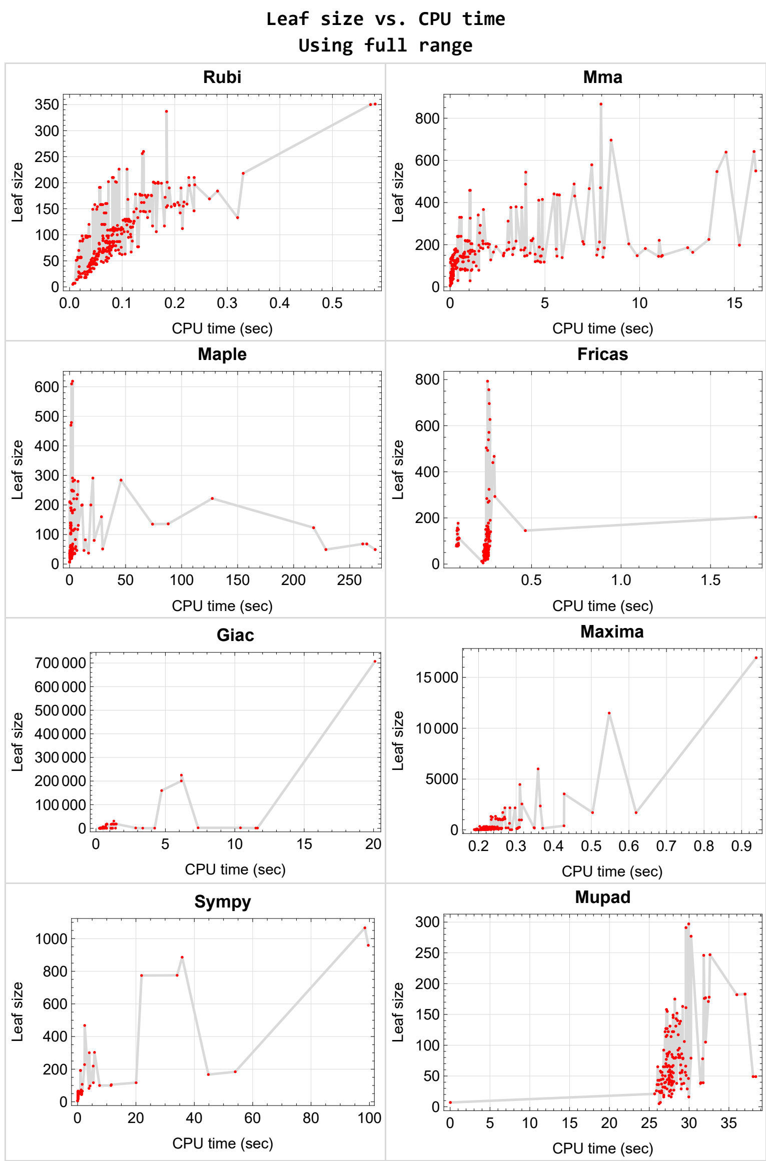


Figure 1.5: Leaf size vs. CPU time. Full range

1.9 list of integrals with no known antiderivative

{}

1.10 List of integrals solved by CAS but has no known antiderivative

Rubi {}

Mathematica {}

Maple {}

Maxima {}

Fricas {}

Sympy {}

Giac {}

Mupad {}

1.11 list of integrals solved by CAS but failed verification

The following are integrals solved by CAS but the verification phase failed to verify the anti-derivative produced is correct. This does not necessarily mean that the anti-derivative is wrong as additional methods of verification might be needed, or more time is needed (3 minutes time limit was used). These integrals are listed here to make it possible to do further investigation to determine why the result could not be verified.

Rubi {}

Mathematica {127, 129, 131, 132, 153, 155, 156, 157, 178, 204, 206, 207, 208, 229, 264, 265, 276, 306}

Maple {261, 303}

Maxima Verification phase not currently implemented.

Fricas Verification phase not currently implemented.

Sympy Verification phase not currently implemented.

Giac Verification phase not currently implemented.

Mupad Verification phase not currently implemented.

1.12 Timing

The command `AbsoluteTiming[]` was used in Mathematica to obtain the elapsed time for each integrate call. In Maple, the command `Usage` was used as in the following example

```
cpu_time := Usage(assign ('result_of_int',int(expr,x)),output='realtime'
```

For all other CAS systems, the elapsed time to complete each integral was found by taking the difference between the time after the call completed from the time before the call was made. This was done using Python's `time.time()` call.

All elapsed times shown are in seconds. A time limit of 3 CPU minutes was used for each integral. If the integrate command did not complete within this time limit, the integral was aborted and considered to have failed and assigned an F grade. The time used by failed integrals due to time out was not counted in the final statistics.

1.13 Verification

A verification phase was applied on the result of integration for `Rubi` and `Mathematica`.

Future version of this report will implement verification for the other CAS systems. For the integrals whose result was not run through a verification phase, it is assumed that the antiderivative was correct.

Verification phase also had 3 minutes time out. An integral whose result was not verified could still be correct, but further investigation is needed on those integrals. These integrals were marked in the summary table below and also in each integral separate section so they are easy to identify and locate.

1.14 Important notes about some of the results

Important note about Maxima results

Since tests were run in a batch mode, and using an automated script, then any integral where Maxima needed an interactive response from the user to answer a question during the evaluation of the integral will fail.

The exception raised is `ValueError`. Therefore Maxima results is lower than what would result if Maxima was run directly and each question was answered correctly.

The percentage of such failures were not counted for each test file, but for an example, for the `Timofeev` test file, there were about 14 such integrals out of total 705, or about 2 percent. This percentage can be higher or lower depending on the specific input test file.

Such integrals can be identified by looking at the output of the integration in each section for Maxima. The exception message will indicate the cause of error.

Maxima integrate was run using SageMath with the following settings set by default

```
'besselexpand : true'
'display2d : false'
'domain : complex'
'keepfloat : true'
'load(to_poly_solve)'
'load(simplify_sum)'
'load(abs_integrate)' 'load(diag)'
```

SageMath automatic loading of Maxima `abs_integrate` was found to cause some problems. So the following code was added to disable this effect.

```
from sage.interfaces.maxima_lib import maxima_lib
maxima_lib.set('extra_definite_integration_methods', '[]')
maxima_lib.set('extra_integration_methods', '[]')
```

See `https://ask.sagemath.org/question/43088/integrate-results-that-are-different-from-using-maxima/` for reference.

Important note about FriCAS result

There were few integrals which failed due to SageMath interface and not because FriCAS system could not do the integration.

These will fail With error `Exception raised: NotImplementedError`.

The number of such cases seems to be very small. About 1 or 2 percent of all integrals. These can be identified by looking at the exception message given in the result.

Important note about finding leaf size of antiderivative

For Mathematica, Rubi, and Maple, the builtin system function `LeafSize` was used to find the leaf size of each antiderivative.

The other CAS systems (SageMath and Sympy) do not have special builtin function for this purpose at this time. Therefore the leaf size for Fricas and Sympy antiderivative was determined using the following function, thanks to user `slelievre` at `https://ask.sagemath.org/question/57123/could-we-have-a-leaf_count-function-in-base-sagemath/`

```
def tree_size(expr):
    r"""
    Return the tree size of this expression.
    """
    if expr not in SR:
        # deal with lists, tuples, vectors
        return 1 + sum(tree_size(a) for a in expr)
    expr = SR(expr)
```

```
    x, aa = expr.operator(), expr.operands()
    if x is None:
        return 1
    else:
        return 1 + sum(tree_size(a) for a in aa)
```

For Sympy, which was called directly from Python, the following code was used to obtain the leafsize of its result

```
try:
  # 1.7 is a fudge factor since it is low side from actual leaf count
  leafCount = round(1.7*count_ops(anti))

  except Exception as ee:
        leafCount =1
```

Important note about Mupad results

Matlab's symbolic toolbox does not have a leaf count function to measure the size of the antiderivative. Maple was used to determine the leaf size of Mupad output by post processing Mupad result.

Currently no grading of the antiderivative for Mupad is implemented. If it can integrate the problem, it was assigned a B grade automatically as a placeholder. In the future, when grading function is implemented for Mupad, the tests will be rerun again.

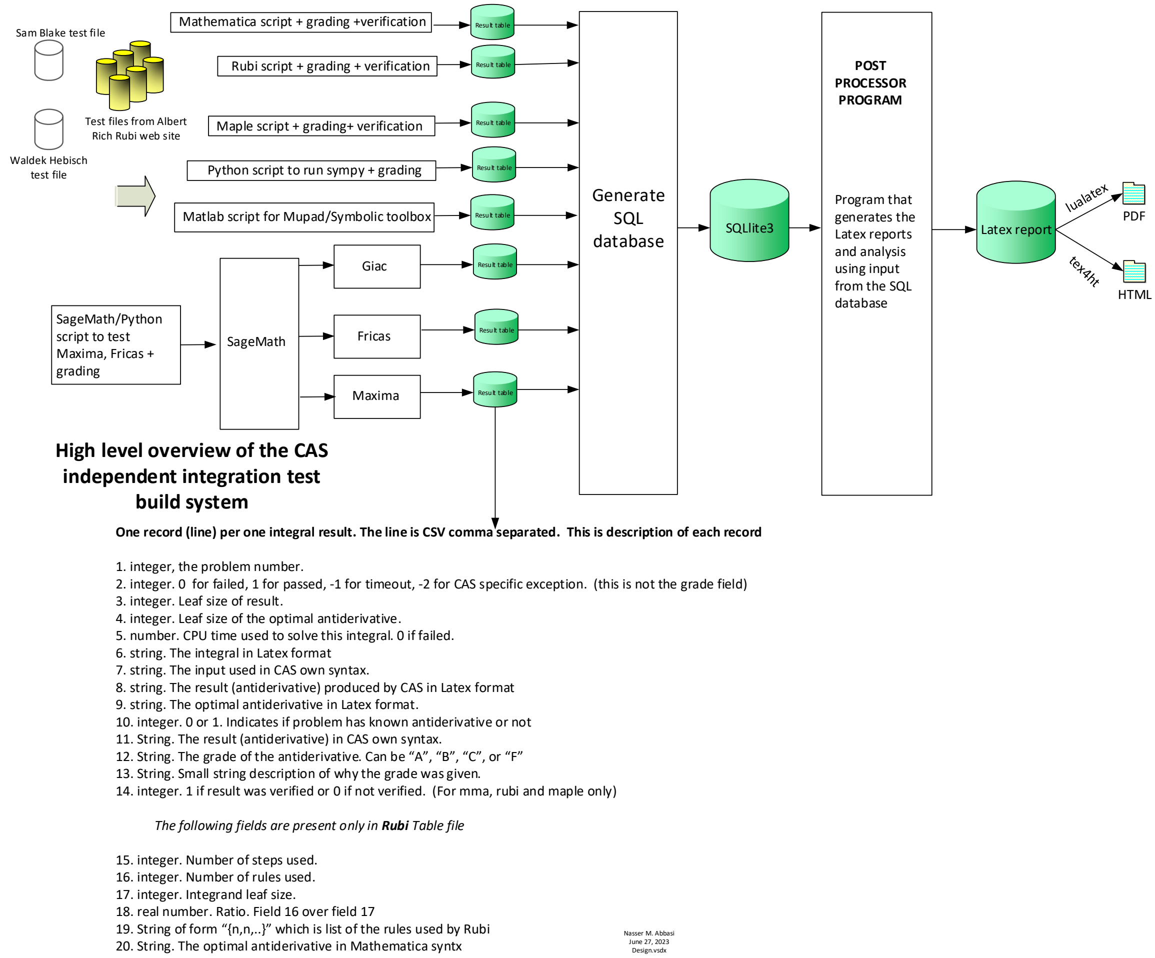
The following is an example of using Matlab's symbolic toolbox (Mupad) to solve an integral

```
integrand = evalin(symengine,'cos(x)*sin(x)')
the_variable = evalin(symengine,'x')
anti = int(integrand,the_variable)
```

Which gives `sin(x)^2/2`

1.15 Design of the test system

The following diagram gives a high level view of the current test build system.



CHAPTER 2

DETAILED SUMMARY TABLES OF RESULTS

2.1 List of integrals sorted by grade for each CAS 22
2.2 Detailed conclusion table per each integral for all CAS systems 27
2.3 Detailed conclusion table specific for Rubi results 94

2.1 List of integrals sorted by grade for each CAS

Rubi 22
Mma 23
Maple 23
Fricas 24
Maxima 24
Giac 25
Mupad 25
Sympy 26

Rubi

A grade { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330 }

B grade { }

C grade { 259, 260, 301, 302 }

F normal fail { }

F(-1) timedout fail { }

F(-2) exception fail { }

Mma

A grade { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 37, 40, 44, 48, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 76, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 108, 111, 113, 115, 116, 117, 119, 120, 121, 122, 123, 124, 126, 127, 129, 131, 132, 133, 134, 136, 138, 139, 140, 142, 144, 146, 147, 148, 150, 151, 152, 154, 155, 156, 157, 162, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 177, 179, 180, 181, 182, 183, 184, 185, 187, 189, 191, 193, 195, 197, 199, 201, 202, 203, 205, 206, 207, 208, 213, 216, 217, 218, 219, 221, 222, 223, 225, 226, 228, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 256, 259, 260, 264, 265, 266, 267, 269, 270, 271, 273, 274, 275, 277, 278, 279, 280, 281, 283, 285, 286, 287, 288, 289, 290, 291, 293, 294, 295, 296, 297, 298, 300, 301, 302, 306, 307, 308, 309, 311, 312, 313, 315, 316, 317, 319, 321, 322, 323, 325, 327, 328, 329, 330 }

B grade { 75, 77, 89, 110, 112, 114, 118, 128, 130, 135, 137, 141, 143, 145, 149, 153, 158, 159, 160, 161, 163, 164, 176, 178, 186, 188, 190, 192, 194, 196, 200, 204, 209, 210, 211, 212, 214, 215, 227, 229, 254, 255, 257, 258, 261, 262, 263, 268, 272, 276, 282, 284, 292, 299, 303, 304, 305, 310, 314, 318, 320, 324, 326 }

C grade { 72, 125, 198, 220, 224 }

F normal fail { 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 38, 39, 41, 42, 43, 45, 46, 47, 49, 51, 104, 105, 106, 107, 109 }

F(-1) timedout fail { }

F(-2) exception fail { }

Maple

A grade { 3, 4, 5, 6, 9, 10, 11, 12, 15, 16, 17, 18, 21, 22, 23, 24, 25, 30, 31, 32, 37, 39, 40, 44, 45, 46, 55, 60, 64, 66, 68, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 123, 124, 125, 126, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 162, 169, 172, 173, 174, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 213, 220, 223, 224, 225, 231, 232, 233, 234, 235, 236, 240, 246, 251, 256, 259, 262, 263, 292, 296, 298, 300, 301, 302, 304, 305, 309, 311, 313, 315, 317, 319 }

B grade { 1, 2, 27, 28, 38, 48, 50, 52, 111, 113, 115, 119, 121, 267, 269, 271, 273, 275, 277 }

C grade { 117, 261, 303 }

F normal fail { 7, 8, 13, 14, 19, 20, 26, 29, 33, 34, 35, 36, 41, 42, 43, 47, 49, 51, 53, 54, 56, 57, 58, 59, 61, 62, 63, 65, 67, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 104, 105, 106, 107, 108, 109, 110, 112, 114, 116, 118, 120, 122, 127, 128, 129, 130, 131, 132, 133, 134, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164, 165, 166, 167, 168, 170, 171, 175, 176, 177, 178, 179, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 214, 215, 216, 217, 218, 219, 221, 222, 226, 227, 228, 229, 230, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 252, 253, 254, 255, 257, 258, 260, 264, 265, 266, 268, 270, 272, 274, 276, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 293, 294, 295, 297, 299, 306, 307, 308, 310, 312, 314, 316, 318, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330 }

F(-1) timedout fail { }

F(-2) exception fail { }

Fricas

A grade { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 37, 44, 48, 69, 70, 71, 72, 73, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 122, 123, 124, 125, 126, 135, 136, 137, 138, 139, 141, 142, 143, 144, 145, 148, 149, 162, 172, 186, 188, 190, 191, 192, 193, 194, 196, 197, 199, 200, 213, 223, 246, 251, 256, 259, 261, 262, 264, 296, 300, 301, 303, 304, 306 }

B grade { 50, 52, 140, 146, 147, 169, 173, 174, 187, 189, 195, 198, 220, 224, 225, 240, 263, 265, 292, 298, 305, 307 }

C grade { 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 45, 46, 47, 49, 51, 55, 60, 64, 66, 68, 104, 105, 106, 107, 108, 109, 111, 113, 115, 117, 119, 121, 180, 181, 182, 183, 184, 185, 231, 232, 233, 234, 235, 236, 260, 267, 269, 271, 273, 275, 277, 302, 309, 311, 313, 315, 317, 319 }

F normal fail { 79, 80, 81, 82, 83, 84, 85, 132, 133, 134, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164, 165, 166, 167, 168, 170, 171, 175, 176, 177, 178, 179, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 214, 215, 216, 217, 218, 219, 221, 222, 226, 227, 228, 229, 230, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 252, 253, 254, 255, 257, 258, 278, 279, 280, 286, 287, 288, 289, 290, 291, 293, 294, 295, 297, 299, 320, 321, 322, 328, 329, 330 }

F(-1) timedout fail { }

F(-2) exception fail { 53, 54, 56, 57, 58, 59, 61, 62, 63, 65, 67, 74, 75, 76, 77, 78, 110, 112, 114, 116, 118, 120, 127, 128, 129, 130, 131, 266, 268, 270, 272, 274, 276, 281, 282, 283, 284, 285, 308, 310, 312, 314, 316, 318, 323, 324, 325, 326, 327 }

Maxima

A grade { 4, 10, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 89, 94, 102, 103, 104, 105, 106, 107, 108, 109, 139, 147, 162, 190, 198, 213, 240, 292 }

B grade { 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 69, 70, 71, 72, 73, 86, 87, 88, 90, 91, 92, 93, 95, 96, 97, 98, 99, 100, 101, 122, 123, 124, 125, 126, 135, 136, 137, 138, 140, 141, 142, 143, 144, 145, 146, 148, 169, 172, 173, 174, 186, 187, 188, 189, 191, 192, 193, 194, 195, 196, 197, 199, 220, 223, 224, 225, 246, 256, 259, 260, 261, 262, 263, 296, 298, 300, 301, 302, 303, 304, 305 }

C grade { }

F normal fail { 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 127, 128, 129, 130, 131, 132, 133, 134, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164, 165, 166, 167, 168, 170, 171, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 214, 215, 216, 217, 218, 219, 221, 222, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 257, 258, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 293, 294, 295, 297, 299, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330 }

F(-1) timedout fail { }

F(-2) exception fail { 149, 200 }

Giac

A grade { 25, 27, 28, 29, 30, 34, 35, 36, 37, 44, 48, 50, 103, 105, 107, 135, 136, 137, 138, 140, 141, 142, 147, 148, 186, 187, 188, 189, 191, 193, 195, 199, 262, 304 }

B grade { 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, 21, 70, 71, 72, 73, 86, 87, 88, 91, 92, 93, 96, 97, 98, 101, 123, 124, 125, 126, 139, 143, 144, 145, 146, 149, 190, 192, 194, 196, 197, 198, 200, 263, 305 }

C grade { 26, 33, 40, 47, 49, 51, 104, 106, 108, 260, 302 }

F normal fail { 4, 5, 6, 10, 11, 12, 16, 17, 18, 22, 23, 24, 31, 32, 38, 39, 45, 46, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 69, 74, 75, 76, 79, 80, 81, 82, 83, 84, 85, 89, 90, 94, 95, 99, 100, 102, 110, 111, 112, 113, 114, 115, 116, 117, 122, 127, 128, 129, 132, 133, 134, 150, 151, 152, 153, 154, 155, 164, 171, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 215, 222, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 261, 264, 265, 266, 267, 272, 273, 274, 275, 276, 277, 278, 279, 280, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 303, 306, 307, 308, 309, 314, 315, 316, 317, 318, 319, 320, 321, 322, 325, 326, 327, 328, 329, 330 }

F(-1) timedout fail { 65, 66, 67, 68, 77, 78, 118, 119, 120, 121, 130, 131, 156, 157, 158, 159, 160, 161, 162, 163, 165, 166, 167, 168, 169, 170, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 213, 214, 216, 217, 218, 219, 220, 221, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 268, 269, 270, 271, 281, 282, 310, 311, 312, 313, 323, 324 }

F(-2) exception fail { 41, 42, 43, 109 }

Mupad

A grade { }

B grade { 1, 2, 3, 4, 7, 8, 9, 10, 13, 14, 15, 16, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 40, 42, 43, 44, 47, 49, 51, 55, 60, 64, 66, 68, 69, 70, 71, 72, 73, 83, 86, 87, 88, 89, 91, 92, 93, 94, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 113, 115, 117, 119, 121, 122, 123, 124, 125, 126, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 162, 169, 172, 173, 174, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 213, 220, 223, 224, 225, 231, 232, 233, 234, 235, 236, 240, 246, 251, 256, 259, 260, 261, 262, 263, 267, 292, 296, 298, 300, 301, 302, 303, 304, 305, 309 }

C grade { }

F normal fail { }

F(-1) timedout fail { 5, 6, 11, 12, 17, 18, 23, 24, 31, 32, 38, 39, 41, 45, 46, 48, 50, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 65, 67, 74, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 90, 95, 100, 110, 112, 114, 116, 118, 120, 127, 128, 129, 130, 131, 132, 133, 134, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164, 165, 166, 167, 168, 170, 171, 175, 176, 177, 178, 179, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 214, 215, 216, 217, 218, 219, 221, 222, 226, 227, 228, 229, 230, 237, 238, 239, 241, 242, 243, 244, 245, 247, 248, 249, 250, 252, 253, 254, 255, 257, 258, 264, 265, 266, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 293, 294, 295, 297, 299, 306, 307, 308, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330 }

F(-2) exception fail { }

Sympy

A grade { 10, 22, 25, 30, 31, 32, 37, 38, 44, 45, 46, 94, 102, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 162, 172, 173, 174, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 224, 240, 292 }

B grade { 4, 16, 39, 89, 99, 213, 223, 225 }

C grade { 5, 6, 11, 12, 17, 18, 23, 24, 90, 95, 100 }

F normal fail { 1, 2, 3, 7, 8, 9, 14, 15, 21, 26, 27, 28, 29, 33, 34, 35, 36, 40, 42, 43, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 69, 70, 71, 72, 73, 75, 76, 77, 80, 81, 82, 83, 84, 85, 86, 87, 88, 91, 92, 93, 96, 97, 98, 101, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 116, 117, 118, 119, 122, 125, 126, 128, 129, 130, 133, 134, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164, 166, 167, 168, 169, 170, 171, 175, 176, 177, 178, 179, 181, 182, 183, 184, 185, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 214, 215, 217, 218, 219, 220, 221, 222, 226, 227, 229, 230, 232, 233, 234, 235, 237, 238, 239, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 261, 262, 263, 264, 265, 266, 267, 268, 269, 272, 273, 274, 275, 278, 279, 280, 283, 284, 285, 286, 287, 288, 289, 290, 291, 293, 294, 295, 296, 297, 298, 299, 300, 301, 303, 304, 305, 306, 307, 308, 309, 310, 311, 314, 315, 316, 317, 318, 320, 321, 322, 325, 326, 327, 328, 329, 330 }

F(-1) timedout fail { 13, 19, 20, 41, 58, 67, 68, 74, 78, 79, 114, 115, 120, 121, 123, 124, 127, 131, 132, 165, 180, 216, 228, 231, 236, 260, 270, 271, 276, 277, 281, 282, 302, 312, 313, 319, 323, 324 }

F(-2) exception fail { }

2.2 Detailed conclusion table per each integral for all CAS systems

Detailed conclusion table per each integral is given by the table below. The elapsed time is in seconds. For failed result it is given as **F(-1)** if the failure was due to timeout. It is given as **F(-2)** if the failure was due to an exception being raised, which could indicate a bug in the system. If the failure was due to integral not being evaluated within the time limit, then it is given as **F**.

In this table, the column `N.S.` means **normalized size** and is defined as $\frac{\text{antiderivative leaf size}}{\text{optimal antiderivative leaf size}}$. To make the table fit the page, the name **`Mathematica`** was abbreviated to **`MMA`**.

Problem 1	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	57	57	44	479	219	49	0	923	44
N.S.	1	1.00	0.77	8.40	3.84	0.86	0.00	16.19	0.77
time (sec)	N/A	0.022	0.077	1.644	0.222	0.238	0.000	0.348	27.253

Problem 2	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	57	57	44	470	219	49	0	923	44
N.S.	1	1.00	0.77	8.25	3.84	0.86	0.00	16.19	0.77
time (sec)	N/A	0.015	0.062	1.217	0.241	0.236	0.000	0.329	27.561

Problem 3	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	52	52	40	43	206	45	0	882	40
N.S.	1	1.00	0.77	0.83	3.96	0.87	0.00	16.96	0.77
time (sec)	N/A	0.014	0.054	0.611	0.231	0.250	0.000	0.294	27.048

Problem 4	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	B	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	19	19	38	20	19	20	36	0	19
N.S.	1	1.00	2.00	1.05	1.00	1.05	1.89	0.00	1.00
time (sec)	N/A	0.022	0.036	0.335	0.191	0.245	0.239	0.000	26.822

Problem 5	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	57	57	40	45	209	44	192	0	0
N.S.	1	1.00	0.70	0.79	3.67	0.77	3.37	0.00	0.00
time (sec)	N/A	0.021	0.059	0.369	0.224	0.243	1.019	0.000	0.000

Problem 6	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	57	57	44	45	216	46	228	0	0
N.S.	1	1.00	0.77	0.79	3.79	0.81	4.00	0.00	0.00
time (sec)	N/A	0.021	0.058	0.616	0.223	0.241	2.395	0.000	0.000

Problem 7	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	97	97	61	0	301	80	0	833	67
N.S.	1	1.00	0.63	0.00	3.10	0.82	0.00	8.59	0.69
time (sec)	N/A	0.038	0.146	0.000	0.213	0.249	0.000	0.460	28.002

Problem 8	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	98	98	57	0	282	78	0	820	67
N.S.	1	1.00	0.58	0.00	2.88	0.80	0.00	8.37	0.68
time (sec)	N/A	0.031	0.103	0.000	0.224	0.252	0.000	0.430	27.445

Problem 9	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	88	88	56	59	280	73	0	786	56
N.S.	1	1.00	0.64	0.67	3.18	0.83	0.00	8.93	0.64
time (sec)	N/A	0.025	0.081	1.136	0.229	0.246	0.000	0.397	29.089

Problem 10	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	39	39	36	32	55	40	51	0	32
N.S.	1	1.00	0.92	0.82	1.41	1.03	1.31	0.00	0.82
time (sec)	N/A	0.038	0.081	0.845	0.215	0.243	1.452	0.000	26.706

Problem 11	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	95	95	57	59	283	71	303	0	0
N.S.	1	1.00	0.60	0.62	2.98	0.75	3.19	0.00	0.00
time (sec)	N/A	0.034	0.097	1.300	0.217	0.256	5.797	0.000	0.000

Problem 12	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	58	59	280	69	468	0	0
N.S.	1	1.00	0.59	0.60	2.86	0.70	4.78	0.00	0.00
time (sec)	N/A	0.032	0.093	2.131	0.229	0.255	2.436	0.000	0.000

Problem 13	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F(-1)	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	160	160	122	0	1008	138	0	18085	122
N.S.	1	1.00	0.76	0.00	6.30	0.86	0.00	113.03	0.76
time (sec)	N/A	0.069	0.415	0.000	0.253	0.266	0.000	1.399	28.062

Problem 14	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	158	158	125	0	1016	140	0	18117	122
N.S.	1	1.00	0.79	0.00	6.43	0.89	0.00	114.66	0.77
time (sec)	N/A	0.063	0.393	0.000	0.234	0.271	0.000	1.157	27.388

Problem 15	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	149	149	121	115	990	130	0	17522	114
N.S.	1	1.00	0.81	0.77	6.64	0.87	0.00	117.60	0.77
time (sec)	N/A	0.052	0.354	1.786	0.263	0.252	0.000	0.767	27.737

Problem 16	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	B	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	43	43	45	35	233	37	73	0	37
N.S.	1	1.00	1.05	0.81	5.42	0.86	1.70	0.00	0.86
time (sec)	N/A	0.038	0.062	2.343	0.225	0.253	1.220	0.000	26.538

Problem 17	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	158	158	125	221	995	127	775	0	0
N.S.	1	1.00	0.79	1.40	6.30	0.80	4.91	0.00	0.00
time (sec)	N/A	0.061	0.289	3.698	0.253	0.251	34.112	0.000	0.000

Problem 18	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	158	158	125	221	1007	129	886	0	0
N.S.	1	1.00	0.79	1.40	6.37	0.82	5.61	0.00	0.00
time (sec)	N/A	0.059	0.306	6.378	0.252	0.264	35.838	0.000	0.000

Problem 19	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F(-1)	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	202	202	171	0	1107	178	0	17035	127
N.S.	1	1.00	0.85	0.00	5.48	0.88	0.00	84.33	0.63
time (sec)	N/A	0.087	0.380	0.000	0.250	0.259	0.000	1.297	27.243

Problem 20	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F(-1)	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	210	210	169	0	1085	177	0	16984	127
N.S.	1	1.00	0.80	0.00	5.17	0.84	0.00	80.88	0.60
time (sec)	N/A	0.081	0.353	0.000	0.270	0.259	0.000	1.082	27.087

Problem 21	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	191	191	168	184	1078	165	0	16422	117
N.S.	1	1.00	0.88	0.96	5.64	0.86	0.00	85.98	0.61
time (sec)	N/A	0.057	0.304	4.412	0.245	0.250	0.000	0.729	28.638

Problem 22	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	73	73	51	46	93	59	100	0	51
N.S.	1	1.00	0.70	0.63	1.27	0.81	1.37	0.00	0.70
time (sec)	N/A	0.057	0.102	6.523	0.230	0.258	11.453	0.000	29.630

Problem 23	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	202	202	170	200	1085	162	959	0	0
N.S.	1	1.00	0.84	0.99	5.37	0.80	4.75	0.00	0.00
time (sec)	N/A	0.074	0.388	11.246	0.265	0.256	99.617	0.000	0.000

Problem 24	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	210	210	169	200	1082	163	1066	0	0
N.S.	1	1.00	0.80	0.95	5.15	0.78	5.08	0.00	0.00
time (sec)	N/A	0.083	0.380	18.994	0.256	0.255	98.440	0.000	0.000

Problem 25	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	39	39	29	34	27	33	56	35	36
N.S.	1	1.00	0.74	0.87	0.69	0.85	1.44	0.90	0.92
time (sec)	N/A	0.018	0.021	0.417	0.189	0.251	0.183	0.260	27.838

Problem 26	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	133	133	0	0	82	63	0	272	135
N.S.	1	1.00	0.00	0.00	0.62	0.47	0.00	2.05	1.02
time (sec)	N/A	0.320	0.000	0.000	0.240	0.261	0.000	1.062	28.790

Problem 27	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	B	A	C	F	A	B
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	88	88	0	619	31	42	0	1	85
N.S.	1	1.00	0.00	7.03	0.35	0.48	0.00	0.01	0.97
time (sec)	N/A	0.119	0.000	2.668	0.220	0.257	0.000	0.429	27.832

Problem 28	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	B	A	C	F	A	B
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	88	88	0	610	31	42	0	1	85
N.S.	1	1.00	0.00	6.93	0.35	0.48	0.00	0.01	0.97
time (sec)	N/A	0.069	0.000	1.820	0.212	0.247	0.000	0.420	27.339

Problem 29	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	82	82	0	0	29	42	0	1	81
N.S.	1	1.00	0.00	0.00	0.35	0.51	0.00	0.01	0.99
time (sec)	N/A	0.057	0.000	0.000	0.223	0.246	0.000	0.351	27.922

Problem 30	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	5	5	5	6	5	5	5	6	5
N.S.	1	1.00	1.00	1.20	1.00	1.00	1.00	1.20	1.00
time (sec)	N/A	0.006	0.001	0.036	0.193	0.229	0.018	0.276	26.234

Problem 31	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	A	A	C	A	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	86	86	0	68	33	45	107	0	0
N.S.	1	1.00	0.00	0.79	0.38	0.52	1.24	0.00	0.00
time (sec)	N/A	0.081	0.000	2.748	0.212	0.240	1.583	0.000	0.000

Problem 32	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	A	A	C	A	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	88	88	0	119	35	45	117	0	0
N.S.	1	1.00	0.00	1.35	0.40	0.51	1.33	0.00	0.00
time (sec)	N/A	0.071	0.000	4.847	0.220	0.242	5.409	0.000	0.000

Problem 33	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	117	117	0	0	173	107	0	498	145
N.S.	1	1.00	0.00	0.00	1.48	0.91	0.00	4.26	1.24
time (sec)	N/A	0.180	0.000	0.000	0.257	0.247	0.000	3.367	28.003

Problem 34	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	76	76	0	0	47	59	0	1	92
N.S.	1	1.00	0.00	0.00	0.62	0.78	0.00	0.01	1.21
time (sec)	N/A	0.098	0.000	0.000	0.226	0.250	0.000	0.770	26.812

Problem 35	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	76	76	0	0	47	60	0	1	92
N.S.	1	1.00	0.00	0.00	0.62	0.79	0.00	0.01	1.21
time (sec)	N/A	0.074	0.000	0.000	0.228	0.254	0.000	0.744	28.605

Problem 36	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	68	68	0	0	41	57	0	1	86
N.S.	1	1.00	0.00	0.00	0.60	0.84	0.00	0.01	1.26
time (sec)	N/A	0.064	0.000	0.000	0.221	0.245	0.000	0.571	27.215

Problem 37	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	7	7	7	8	7	10	7	8	7
N.S.	1	1.00	1.00	1.14	1.00	1.43	1.00	1.14	1.00
time (sec)	N/A	0.007	0.001	0.037	0.217	0.228	0.019	0.262	0.029

Problem 38	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	B	A	C	A	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	74	74	0	199	48	62	105	0	0
N.S.	1	1.00	0.00	2.69	0.65	0.84	1.42	0.00	0.00
time (sec)	N/A	0.076	0.000	10.819	0.253	0.252	11.562	0.000	0.000

Problem 39	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	A	A	C	B	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	76	76	0	80	54	65	219	0	0
N.S.	1	1.00	0.00	1.05	0.71	0.86	2.88	0.00	0.00
time (sec)	N/A	0.081	0.000	21.958	0.225	0.238	5.363	0.000	0.000

Problem 40	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	C	F	C	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	226	226	169	135	195	128	0	1870	297
N.S.	1	1.00	0.75	0.60	0.86	0.57	0.00	8.27	1.31
time (sec)	N/A	0.109	0.958	74.050	0.279	0.259	0.000	7.354	29.957

Problem 41	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F(-1)	F(-2)	F(-1)
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	172	172	0	0	90	82	0	0	0
N.S.	1	1.00	0.00	0.00	0.52	0.48	0.00	0.00	0.00
time (sec)	N/A	0.182	0.000	0.000	0.241	0.252	0.000	0.000	0.000

Problem 42	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	F(-2)	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	178	178	0	0	112	84	0	0	163
N.S.	1	1.00	0.00	0.00	0.63	0.47	0.00	0.00	0.92
time (sec)	N/A	0.125	0.000	0.000	0.241	0.236	0.000	0.000	29.193

Problem 43	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	F(-2)	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	168	168	0	0	106	84	0	0	155
N.S.	1	1.00	0.00	0.00	0.63	0.50	0.00	0.00	0.92
time (sec)	N/A	0.111	0.000	0.000	0.247	0.245	0.000	0.000	27.260

Problem 44	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	7	7	7	8	7	12	7	8	7
N.S.	1	1.00	1.00	1.14	1.00	1.71	1.00	1.14	1.00
time (sec)	N/A	0.010	0.003	0.034	0.199	0.222	0.019	0.252	26.395

Problem 45	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	A	A	C	A	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	176	176	0	284	122	87	167	0	0
N.S.	1	1.00	0.00	1.61	0.69	0.49	0.95	0.00	0.00
time (sec)	N/A	0.138	0.000	45.932	0.253	0.252	44.818	0.000	0.000

Problem 46	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	A	A	C	A	F	F(-1)
verified	N/A	Yes	N/A	Yes	TBD	TBD	TBD	TBD	TBD
size	178	178	0	136	128	87	184	0	0
N.S.	1	1.00	0.00	0.76	0.72	0.49	1.03	0.00	0.00
time (sec)	N/A	0.134	0.000	88.059	0.242	0.246	54.026	0.000	0.000

Problem 47	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	112	112	0	0	48	51	0	189	139
N.S.	1	1.00	0.00	0.00	0.43	0.46	0.00	1.69	1.24
time (sec)	N/A	0.215	0.000	0.000	0.232	0.257	0.000	0.579	28.918

Problem 48	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	A	A	F	A	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	52	52	44	106	31	24	0	24	0
N.S.	1	1.00	0.85	2.04	0.60	0.46	0.00	0.46	0.00
time (sec)	N/A	0.041	0.058	1.095	0.206	0.255	0.000	0.276	0.000

Problem 49	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	106	106	0	0	134	75	0	350	149
N.S.	1	1.00	0.00	0.00	1.26	0.71	0.00	3.30	1.41
time (sec)	N/A	0.165	0.000	0.000	0.218	0.245	0.000	1.405	27.991

Problem 50	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	A	B	F	A	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	53	53	60	173	47	145	0	27	0
N.S.	1	1.00	1.13	3.26	0.89	2.74	0.00	0.51	0.00
time (sec)	N/A	0.053	0.087	2.571	0.214	0.465	0.000	0.353	0.000

Problem 51	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	218	218	0	0	206	98	0	1297	291
N.S.	1	1.00	0.00	0.00	0.94	0.45	0.00	5.95	1.33
time (sec)	N/A	0.330	0.000	0.000	0.223	0.261	0.000	2.860	29.610

Problem 52	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	A	B	F	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	103	284	75	204	0	0	0
N.S.	1	1.00	1.05	2.90	0.77	2.08	0.00	0.00	0.00
time (sec)	N/A	0.071	0.103	4.481	0.209	1.753	0.000	0.000	0.000

Problem 53	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	145	0	0	0	0	0	0
N.S.	1	1.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.094	11.000	0.000	0.000	0.000	0.000	0.000	0.000

Problem 54	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	148	0	0	0	0	0	0
N.S.	1	1.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.086	9.871	0.000	0.000	0.000	0.000	0.000	0.000

Problem 55	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	32	129	0	90	0	0	26
N.S.	1	1.00	1.10	4.45	0.00	3.10	0.00	0.00	0.90
time (sec)	N/A	0.029	0.088	0.987	0.000	0.091	0.000	0.000	26.549

Problem 56	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	149	0	0	0	0	0	0
N.S.	1	1.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.098	11.201	0.000	0.000	0.000	0.000	0.000	0.000

Problem 57	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	145	0	0	0	0	0	0
N.S.	1	1.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.093	11.153	0.000	0.000	0.000	0.000	0.000	0.000

Problem 58	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	218	0	0	0	0	0	0
N.S.	1	1.00	1.96	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.092	1.005	0.000	0.000	0.000	0.000	0.000	0.000

Problem 59	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	218	0	0	0	0	0	0
N.S.	1	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.086	0.823	0.000	0.000	0.000	0.000	0.000	0.000

Problem 60	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	68	68	58	131	0	111	0	0	65
N.S.	1	1.00	0.85	1.93	0.00	1.63	0.00	0.00	0.96
time (sec)	N/A	0.047	0.121	0.947	0.000	0.095	0.000	0.000	26.064

Problem 61	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	220	0	0	0	0	0	0
N.S.	1	1.00	1.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.101	0.916	0.000	0.000	0.000	0.000	0.000	0.000

Problem 62	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	111	111	216	0	0	0	0	0	0
N.S.	1	1.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.100	0.930	0.000	0.000	0.000	0.000	0.000	0.000

Problem 63	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	132	0	0	0	0	0	0
N.S.	1	1.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.080	0.412	0.000	0.000	0.000	0.000	0.000	0.000

Problem 64	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	32	102	0	82	0	0	26
N.S.	1	1.00	1.10	3.52	0.00	2.83	0.00	0.00	0.90
time (sec)	N/A	0.033	0.111	0.874	0.000	0.081	0.000	0.000	25.897

Problem 65	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	164	0	0	0	0	0	0
N.S.	1	1.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	12.804	0.000	0.000	0.000	0.000	0.000	0.000

Problem 66	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	64	64	57	190	0	156	0	0	65
N.S.	1	1.00	0.89	2.97	0.00	2.44	0.00	0.00	1.02
time (sec)	N/A	0.046	0.163	0.977	0.000	0.086	0.000	0.000	27.616

Problem 67	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	191	0	0	0	0	0	0
N.S.	1	1.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.081	2.425	0.000	0.000	0.000	0.000	0.000	0.000

Problem 68	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	68	68	61	131	0	177	0	0	65
N.S.	1	1.00	0.90	1.93	0.00	2.60	0.00	0.00	0.96
time (sec)	N/A	0.047	0.173	0.882	0.000	0.090	0.000	0.000	26.770

Problem 69	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	F	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	49	49	81	0	402	43	0	0	50
N.S.	1	1.00	1.65	0.00	8.20	0.88	0.00	0.00	1.02
time (sec)	N/A	0.045	0.154	0.000	0.427	0.238	0.000	0.000	27.784

Problem 70	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	337	337	341	0	16932	467	0	706991	175
N.S.	1	1.00	1.01	0.00	50.24	1.39	0.00	2097.90	0.52
time (sec)	N/A	0.184	1.481	0.000	0.939	0.291	0.000	20.102	28.210

Problem 71	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	256	256	326	0	11491	293	0	200416	161
N.S.	1	1.00	1.27	0.00	44.89	1.14	0.00	782.88	0.63
time (sec)	N/A	0.138	1.058	0.000	0.548	0.295	0.000	6.148	29.605

Problem 72	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	C	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	154	154	102	0	2551	155	0	30585	95
N.S.	1	1.00	0.66	0.00	16.56	1.01	0.00	198.60	0.62
time (sec)	N/A	0.053	0.258	0.000	0.315	0.257	0.000	1.285	28.782

Problem 73	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	B	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	92	92	63	0	1263	86	0	6580	80
N.S.	1	1.00	0.68	0.00	13.73	0.93	0.00	71.52	0.87
time (sec)	N/A	0.026	0.136	0.000	0.269	0.253	0.000	0.519	28.695

Problem 74	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	150	145	256	0	0	0	0	0	0
N.S.	1	0.97	1.71	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.152	1.559	0.000	0.000	0.000	0.000	0.000	0.000

Problem 75	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	149	145	488	0	0	0	0	0	0
N.S.	1	0.97	3.28	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.141	6.542	0.000	0.000	0.000	0.000	0.000	0.000

Problem 76	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	150	150	165	0	0	0	0	0	0
N.S.	1	1.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.127	0.763	0.000	0.000	0.000	0.000	0.000	0.000

Problem 77	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	150	145	544	0	0	0	0	0	0
N.S.	1	0.97	3.63	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.140	3.990	0.000	0.000	0.000	0.000	0.000	0.000

Problem 78	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	150	145	205	0	0	0	0	0	0
N.S.	1	0.97	1.37	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.135	1.740	0.000	0.000	0.000	0.000	0.000	0.000

Problem 79	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	144	144	174	0	0	0	0	0	0
N.S.	1	1.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.144	1.069	0.000	0.000	0.000	0.000	0.000	0.000

Problem 80	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	114	114	148	0	0	0	0	0	0
N.S.	1	1.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.117	0.693	0.000	0.000	0.000	0.000	0.000	0.000

Problem 81	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	114	114	144	0	0	0	0	0	0
N.S.	1	1.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.099	0.699	0.000	0.000	0.000	0.000	0.000	0.000

Problem 82	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	112	112	146	0	0	0	0	0	0
N.S.	1	1.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.087	0.522	0.000	0.000	0.000	0.000	0.000	0.000

Problem 83	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	86	86	86	0	0	0	0	0	77
N.S.	1	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.90
time (sec)	N/A	0.074	0.137	0.000	0.000	0.000	0.000	0.000	27.139

Problem 84	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	115	115	146	0	0	0	0	0	0
N.S.	1	1.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.116	0.563	0.000	0.000	0.000	0.000	0.000	0.000

Problem 85	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	115	115	142	0	0	0	0	0	0
N.S.	1	1.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.120	0.598	0.000	0.000	0.000	0.000	0.000	0.000

Problem 86	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	56	56	43	44	218	48	0	923	43
N.S.	1	1.00	0.77	0.79	3.89	0.86	0.00	16.48	0.77
time (sec)	N/A	0.022	0.059	2.527	0.234	0.252	0.000	0.348	26.091

Problem 87	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	56	56	43	44	218	48	0	915	43
N.S.	1	1.00	0.77	0.79	3.89	0.86	0.00	16.34	0.77
time (sec)	N/A	0.018	0.055	1.977	0.245	0.245	0.000	0.328	26.264

Problem 88	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	51	51	39	40	205	43	0	878	39
N.S.	1	1.00	0.76	0.78	4.02	0.84	0.00	17.22	0.76
time (sec)	N/A	0.013	0.041	1.105	0.233	0.241	0.000	0.297	26.939

Problem 89	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	A	A	B	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	18	18	37	19	18	19	34	0	18
N.S.	1	1.00	2.06	1.06	1.00	1.06	1.89	0.00	1.00
time (sec)	N/A	0.018	0.023	0.524	0.215	0.243	0.225	0.000	27.471

Problem 90	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	56	56	41	44	208	45	192	0	0
N.S.	1	1.00	0.73	0.79	3.71	0.80	3.43	0.00	0.00
time (sec)	N/A	0.020	0.049	0.638	0.234	0.239	1.008	0.000	0.000

Problem 91	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	97	97	61	61	301	76	0	833	66
N.S.	1	1.00	0.63	0.63	3.10	0.78	0.00	8.59	0.68
time (sec)	N/A	0.036	0.136	2.323	0.250	0.251	0.000	0.464	27.228

Problem 92	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	54	57	282	74	0	820	66
N.S.	1	1.00	0.55	0.58	2.88	0.76	0.00	8.37	0.67
time (sec)	N/A	0.024	0.079	1.410	0.233	0.260	0.000	0.450	27.174

Problem 93	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	88	88	54	57	280	68	0	786	56
N.S.	1	1.00	0.61	0.65	3.18	0.77	0.00	8.93	0.64
time (sec)	N/A	0.020	0.067	1.720	0.241	0.241	0.000	0.417	27.665

Problem 94	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	39	39	36	30	53	39	51	0	32
N.S.	1	1.00	0.92	0.77	1.36	1.00	1.31	0.00	0.82
time (sec)	N/A	0.035	0.063	1.409	0.224	0.247	1.172	0.000	26.950

Problem 95	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	95	95	57	61	285	68	301	0	0
N.S.	1	1.00	0.60	0.64	3.00	0.72	3.17	0.00	0.00
time (sec)	N/A	0.031	0.104	2.259	0.243	0.254	4.019	0.000	0.000

Problem 96	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	160	160	120	117	1007	127	0	18053	122
N.S.	1	1.00	0.75	0.73	6.29	0.79	0.00	112.83	0.76
time (sec)	N/A	0.071	0.378	7.307	0.259	0.252	0.000	1.465	27.907

Problem 97	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	158	158	123	117	1015	129	0	18069	122
N.S.	1	1.00	0.78	0.74	6.42	0.82	0.00	114.36	0.77
time (sec)	N/A	0.048	0.370	4.093	0.263	0.247	0.000	1.228	26.986

Problem 98	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	149	149	117	113	989	119	0	17458	114
N.S.	1	1.00	0.79	0.76	6.64	0.80	0.00	117.17	0.77
time (sec)	N/A	0.044	0.328	3.263	0.259	0.251	0.000	0.798	27.112

Problem 99	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	B	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	42	42	42	35	232	36	71	0	37
N.S.	1	1.00	1.00	0.83	5.52	0.86	1.69	0.00	0.88
time (sec)	N/A	0.039	0.044	4.697	0.232	0.243	1.272	0.000	27.886

Problem 100	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	C	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	158	158	122	235	994	119	774	0	0
N.S.	1	1.00	0.77	1.49	6.29	0.75	4.90	0.00	0.00
time (sec)	N/A	0.060	0.350	7.092	0.265	0.262	21.927	0.000	0.000

Problem 101	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	191	191	167	131	1078	144	0	16422	116
N.S.	1	1.00	0.87	0.69	5.64	0.75	0.00	85.98	0.61
time (sec)	N/A	0.058	0.389	7.800	0.268	0.256	0.000	0.757	27.222

Problem 102	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	73	73	51	46	93	59	100	0	50
N.S.	1	1.00	0.70	0.63	1.27	0.81	1.37	0.00	0.68
time (sec)	N/A	0.055	0.117	12.884	0.231	0.258	7.541	0.000	27.001

Problem 103	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	F	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	22	30	20	25	0	25	21
N.S.	1	1.00	0.76	1.03	0.69	0.86	0.00	0.86	0.72
time (sec)	N/A	0.017	0.040	0.806	0.197	0.245	0.000	0.287	25.675

Problem 104	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	101	101	0	0	82	60	0	267	131
N.S.	1	1.00	0.00	0.00	0.81	0.59	0.00	2.64	1.30
time (sec)	N/A	0.116	0.000	0.000	0.260	0.256	0.000	1.180	28.332

Problem 105	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	62	62	0	0	29	40	0	1	83
N.S.	1	1.00	0.00	0.00	0.47	0.65	0.00	0.02	1.34
time (sec)	N/A	0.055	0.000	0.000	0.233	0.241	0.000	0.353	28.801

Problem 106	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	C	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	117	117	0	0	172	107	0	498	143
N.S.	1	1.00	0.00	0.00	1.47	0.91	0.00	4.26	1.22
time (sec)	N/A	0.158	0.000	0.000	0.262	0.262	0.000	4.228	28.377

Problem 107	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	A	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	68	68	0	0	41	57	0	1	86
N.S.	1	1.00	0.00	0.00	0.60	0.84	0.00	0.01	1.26
time (sec)	N/A	0.076	0.000	0.000	0.240	0.243	0.000	0.612	29.065

Problem 108	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	A	C	F	C	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	226	226	158	0	195	128	0	1870	277
N.S.	1	1.00	0.70	0.00	0.86	0.57	0.00	8.27	1.23
time (sec)	N/A	0.094	1.043	0.000	0.273	0.260	0.000	10.409	30.253

Problem 109	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	F	F	A	C	F	F(-2)	B
verified	N/A	Yes	N/A	N/A	TBD	TBD	TBD	TBD	TBD
size	128	128	0	0	106	84	0	0	158
N.S.	1	1.00	0.00	0.00	0.83	0.66	0.00	0.00	1.23
time (sec)	N/A	0.102	0.000	0.000	0.241	0.252	0.000	0.000	27.166

Problem 110	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	377	0	0	0	0	0	0
N.S.	1	1.00	3.43	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.090	3.775	0.000	0.000	0.000	0.000	0.000	0.000

Problem 111	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	24	24	24	181	0	84	0	0	23
N.S.	1	1.00	1.00	7.54	0.00	3.50	0.00	0.00	0.96
time (sec)	N/A	0.030	0.065	2.868	0.000	0.082	0.000	0.000	26.581

Problem 112	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	220	0	0	0	0	0	0
N.S.	1	1.00	2.02	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.085	0.795	0.000	0.000	0.000	0.000	0.000	0.000

Problem 113	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	63	63	54	247	0	107	0	0	56
N.S.	1	1.00	0.86	3.92	0.00	1.70	0.00	0.00	0.89
time (sec)	N/A	0.054	0.088	3.559	0.000	0.085	0.000	0.000	26.497

Problem 114	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	696	0	0	0	0	0	0
N.S.	1	1.00	6.33	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	8.494	0.000	0.000	0.000	0.000	0.000	0.000

Problem 115	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F(-1)	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	63	63	58	280	0	113	0	0	65
N.S.	1	1.00	0.92	4.44	0.00	1.79	0.00	0.00	1.03
time (sec)	N/A	0.053	0.106	7.510	0.000	0.091	0.000	0.000	26.958

Problem 116	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	134	0	0	0	0	0	0
N.S.	1	1.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.072	0.385	0.000	0.000	0.000	0.000	0.000	0.000

Problem 117	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	C	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	24	24	24	26	0	78	0	0	23
N.S.	1	1.00	1.00	1.08	0.00	3.25	0.00	0.00	0.96
time (sec)	N/A	0.034	0.059	1.177	0.000	0.080	0.000	0.000	26.371

Problem 118	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	431	0	0	0	0	0	0
N.S.	1	1.00	3.95	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.078	6.574	0.000	0.000	0.000	0.000	0.000	0.000

Problem 119	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	59	59	54	250	0	150	0	0	65
N.S.	1	1.00	0.92	4.24	0.00	2.54	0.00	0.00	1.10
time (sec)	N/A	0.051	0.140	2.461	0.000	0.091	0.000	0.000	27.257

Problem 120	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	188	0	0	0	0	0	0
N.S.	1	1.00	1.72	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.077	2.006	0.000	0.000	0.000	0.000	0.000	0.000

Problem 121	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	63	63	54	291	0	149	0	0	65
N.S.	1	1.00	0.86	4.62	0.00	2.37	0.00	0.00	1.03
time (sec)	N/A	0.051	0.158	2.607	0.000	0.087	0.000	0.000	27.863

Problem 122	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	B	A	F	F	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	48	48	82	0	187	39	0	0	48
N.S.	1	1.00	1.71	0.00	3.90	0.81	0.00	0.00	1.00
time (sec)	N/A	0.043	0.153	0.000	0.348	0.260	0.000	0.000	27.880

Problem 123	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F(-1)	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	266	260	312	222	3537	273	0	225232	152
N.S.	1	0.98	1.17	0.83	13.30	1.03	0.00	846.74	0.57
time (sec)	N/A	0.141	3.058	127.385	0.428	0.263	0.000	6.153	28.481

Problem 124	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F(-1)	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	201	201	292	160	2352	190	0	159584	140
N.S.	1	1.00	1.45	0.80	11.70	0.95	0.00	793.95	0.70
time (sec)	N/A	0.089	1.590	28.453	0.364	0.269	0.000	4.729	28.563

Problem 125	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	C	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	120	120	91	83	646	105	0	8742	82
N.S.	1	1.00	0.76	0.69	5.38	0.88	0.00	72.85	0.68
time (sec)	N/A	0.037	0.364	5.161	0.282	0.246	0.000	0.697	27.273

Problem 126	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	70	70	53	63	313	58	0	5162	70
N.S.	1	1.00	0.76	0.90	4.47	0.83	0.00	73.74	1.00
time (sec)	N/A	0.018	0.113	0.900	0.237	0.243	0.000	0.481	27.081

Problem 127	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	204	0	0	0	0	0	0
N.S.	1	0.97	1.57	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.115	1.880	0.000	0.000	0.000	0.000	0.000	0.000

Problem 128	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	129	126	436	0	0	0	0	0	0
N.S.	1	0.98	3.38	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.114	5.764	0.000	0.000	0.000	0.000	0.000	0.000

Problem 129	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	130	130	119	0	0	0	0	0	0
N.S.	1	1.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.109	0.694	0.000	0.000	0.000	0.000	0.000	0.000

Problem 130	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	487	0	0	0	0	0	0
N.S.	1	0.97	3.75	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.112	3.979	0.000	0.000	0.000	0.000	0.000	0.000

Problem 131	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	205	0	0	0	0	0	0
N.S.	1	0.97	1.58	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.115	1.983	0.000	0.000	0.000	0.000	0.000	0.000

Problem 132	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F(-1)	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	144	144	170	0	0	0	0	0	0
N.S.	1	1.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.122	1.519	0.000	0.000	0.000	0.000	0.000	0.000

Problem 133	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	114	114	141	0	0	0	0	0	0
N.S.	1	1.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.083	0.776	0.000	0.000	0.000	0.000	0.000	0.000

Problem 134	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	112	112	143	0	0	0	0	0	0
N.S.	1	1.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	0.584	0.000	0.000	0.000	0.000	0.000	0.000

Problem 135	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	47	47	132	37	88	30	37	37	36
N.S.	1	1.00	2.81	0.79	1.87	0.64	0.79	0.79	0.77
time (sec)	N/A	0.064	0.035	4.364	0.196	0.243	0.121	0.354	25.983

Problem 136	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	43	43	66	33	149	42	61	26	36
N.S.	1	1.00	1.53	0.77	3.47	0.98	1.42	0.60	0.84
time (sec)	N/A	0.050	0.031	3.039	0.304	0.251	0.106	0.341	26.151

Problem 137	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	33	33	114	26	70	21	26	28	25
N.S.	1	1.00	3.45	0.79	2.12	0.64	0.79	0.85	0.76
time (sec)	N/A	0.038	0.022	2.105	0.193	0.255	0.097	0.342	26.229

Problem 138	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	27	27	42	22	122	33	27	17	25
N.S.	1	1.00	1.56	0.81	4.52	1.22	1.00	0.63	0.93
time (sec)	N/A	0.018	0.013	1.556	0.301	0.238	0.098	0.320	27.554

Problem 139	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	14	14	14	17	10	16	17	73	16
N.S.	1	1.00	1.00	1.21	0.71	1.14	1.21	5.21	1.14
time (sec)	N/A	0.013	0.050	0.649	0.192	0.241	0.144	0.338	29.966

Problem 140	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	44	24	127	39	27	19	27
N.S.	1	1.00	1.52	0.83	4.38	1.34	0.93	0.66	0.93
time (sec)	N/A	0.037	0.033	1.677	0.302	0.254	0.116	0.356	27.699

Problem 141	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	35	35	132	36	94	37	39	36	35
N.S.	1	1.00	3.77	1.03	2.69	1.06	1.11	1.03	1.00
time (sec)	N/A	0.046	0.038	2.541	0.206	0.232	0.187	0.347	27.791

Problem 142	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	45	45	70	35	156	53	53	28	40
N.S.	1	1.00	1.56	0.78	3.47	1.18	1.18	0.62	0.89
time (sec)	N/A	0.050	0.034	3.666	0.371	0.238	0.155	0.347	27.743

Problem 143	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	63	63	155	52	217	64	54	261	51
N.S.	1	1.00	2.46	0.83	3.44	1.02	0.86	4.14	0.81
time (sec)	N/A	0.106	0.193	5.163	0.210	0.242	0.174	0.461	27.490

Problem 144	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	62	62	100	48	254	86	66	141	52
N.S.	1	1.00	1.61	0.77	4.10	1.39	1.06	2.27	0.84
time (sec)	N/A	0.100	0.099	2.923	0.309	0.242	0.171	0.457	27.679

Problem 145	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	51	51	135	42	185	54	42	221	41
N.S.	1	1.00	2.65	0.82	3.63	1.06	0.82	4.33	0.80
time (sec)	N/A	0.069	0.093	1.361	0.208	0.236	0.152	0.459	28.087

Problem 146	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	46	46	70	36	218	77	51	114	42
N.S.	1	1.00	1.52	0.78	4.74	1.67	1.11	2.48	0.91
time (sec)	N/A	0.039	0.068	1.474	0.347	0.245	0.162	0.383	27.842

Problem 147	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	B	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	18	18	28	17	17	30	22	17	16
N.S.	1	1.00	1.56	0.94	0.94	1.67	1.22	0.94	0.89
time (sec)	N/A	0.029	0.042	0.548	0.284	0.236	0.163	0.306	26.817

Problem 148	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	60	60	72	38	223	78	54	73	45
N.S.	1	1.00	1.20	0.63	3.72	1.30	0.90	1.22	0.75
time (sec)	N/A	0.079	0.095	0.869	0.306	0.267	0.194	0.473	26.729

Problem 149	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	F(-2)	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	55	55	150	51	0	74	61	178	56
N.S.	1	1.00	2.73	0.93	0.00	1.35	1.11	3.24	1.02
time (sec)	N/A	0.073	0.135	1.247	0.000	0.245	0.277	0.462	26.604

Problem 150	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	71	71	124	0	0	0	0	0	0
N.S.	1	1.00	1.75	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.064	0.188	0.000	0.000	0.000	0.000	0.000	0.000

Problem 151	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	77	77	86	0	0	0	0	0	0
N.S.	1	1.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.129	0.309	0.000	0.000	0.000	0.000	0.000	0.000

Problem 152	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	184	184	125	0	0	0	0	0	0
N.S.	1	1.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.281	0.235	0.000	0.000	0.000	0.000	0.000	0.000

Problem 153	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	142	142	330	0	0	0	0	0	0
N.S.	1	1.00	2.32	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.069	0.593	0.000	0.000	0.000	0.000	0.000	0.000

Problem 154	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	162	162	157	0	0	0	0	0	0
N.S.	1	1.00	0.97	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.141	0.704	0.000	0.000	0.000	0.000	0.000	0.000

Problem 155	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	240	0	0	0	0	0	0
N.S.	1	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.066	0.455	0.000	0.000	0.000	0.000	0.000	0.000

Problem 156	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	240	0	0	0	0	0	0
N.S.	1	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.066	0.386	0.000	0.000	0.000	0.000	0.000	0.000

Problem 157	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	240	0	0	0	0	0	0
N.S.	1	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.067	0.573	0.000	0.000	0.000	0.000	0.000	0.000

Problem 158	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	71	71	146	0	0	0	0	0	0
N.S.	1	1.00	2.06	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.079	5.636	0.000	0.000	0.000	0.000	0.000	0.000

Problem 159	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	75	75	155	0	0	0	0	0	0
N.S.	1	1.00	2.07	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.072	4.487	0.000	0.000	0.000	0.000	0.000	0.000

Problem 160	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	69	69	146	0	0	0	0	0	0
N.S.	1	1.00	2.12	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.068	4.766	0.000	0.000	0.000	0.000	0.000	0.000

Problem 161	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	67	67	151	0	0	0	0	0	0
N.S.	1	1.00	2.25	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.062	7.738	0.000	0.000	0.000	0.000	0.000	0.000

Problem 162	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	A	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	26	26	25	30	24	35	44	0	38
N.S.	1	1.00	0.96	1.15	0.92	1.35	1.69	0.00	1.46
time (sec)	N/A	0.025	0.058	0.205	0.208	0.259	1.399	0.000	29.342

Problem 163	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	71	71	153	0	0	0	0	0	0
N.S.	1	1.00	2.15	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.068	3.299	0.000	0.000	0.000	0.000	0.000	0.000

Problem 164	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	69	69	147	0	0	0	0	0	0
N.S.	1	1.00	2.13	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.076	2.813	0.000	0.000	0.000	0.000	0.000	0.000

Problem 165	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	159	159	179	0	0	0	0	0	0
N.S.	1	1.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.223	5.597	0.000	0.000	0.000	0.000	0.000	0.000

Problem 166	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	163	163	189	0	0	0	0	0	0
N.S.	1	1.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.218	4.704	0.000	0.000	0.000	0.000	0.000	0.000

Problem 167	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	159	159	179	0	0	0	0	0	0
N.S.	1	1.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.199	4.884	0.000	0.000	0.000	0.000	0.000	0.000

Problem 168	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	154	154	185	0	0	0	0	0	0
N.S.	1	1.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.193	8.137	0.000	0.000	0.000	0.000	0.000	0.000

Problem 169	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	51	35	320	85	0	0	39
N.S.	1	1.00	1.76	1.21	11.03	2.93	0.00	0.00	1.34
time (sec)	N/A	0.035	0.091	0.181	0.222	0.248	0.000	0.000	31.481

Problem 170	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	157	157	184	0	0	0	0	0	0
N.S.	1	1.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.209	3.380	0.000	0.000	0.000	0.000	0.000	0.000

Problem 171	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	156	156	179	0	0	0	0	0	0
N.S.	1	1.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.200	3.095	0.000	0.000	0.000	0.000	0.000	0.000

Problem 172	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	43	43	38	41	1242	69	63	0	105
N.S.	1	1.00	0.88	0.95	28.88	1.60	1.47	0.00	2.44
time (sec)	N/A	0.038	0.164	0.291	0.237	0.258	0.785	0.000	32.069

Problem 173	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	45	45	62	44	2171	140	65	0	183
N.S.	1	1.00	1.38	0.98	48.24	3.11	1.44	0.00	4.07
time (sec)	N/A	0.045	0.082	0.417	0.270	0.252	1.651	0.000	37.026

Problem 174	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	67	67	55	57	4466	129	82	0	247
N.S.	1	1.00	0.82	0.85	66.66	1.93	1.22	0.00	3.69
time (sec)	N/A	0.056	0.143	0.635	0.310	0.261	3.918	0.000	32.623

Problem 175	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	101	101	186	0	0	0	0	0	0
N.S.	1	1.00	1.84	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	12.536	0.000	0.000	0.000	0.000	0.000	0.000

Problem 176	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	196	196	550	0	0	0	0	0	0
N.S.	1	1.00	2.81	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.238	16.131	0.000	0.000	0.000	0.000	0.000	0.000

Problem 177	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	351	351	642	0	0	0	0	0	0
N.S.	1	1.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.581	16.040	0.000	0.000	0.000	0.000	0.000	0.000

Problem 178	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	190	190	458	0	0	0	0	0	0
N.S.	1	1.00	2.41	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.190	1.062	0.000	0.000	0.000	0.000	0.000	0.000

Problem 179	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	210	210	205	0	0	0	0	0	0
N.S.	1	1.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.227	1.146	0.000	0.000	0.000	0.000	0.000	0.000

Problem 180	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	201	201	121	139	0	504	0	0	79
N.S.	1	1.00	0.60	0.69	0.00	2.51	0.00	0.00	0.39
time (sec)	N/A	0.186	0.345	1.023	0.000	0.247	0.000	0.000	30.238

Problem 181	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	199	199	176	139	0	324	0	0	78
N.S.	1	1.00	0.88	0.70	0.00	1.63	0.00	0.00	0.39
time (sec)	N/A	0.175	0.227	0.848	0.000	0.263	0.000	0.000	29.221

Problem 182	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	176	176	82	122	0	284	0	0	131
N.S.	1	1.00	0.47	0.69	0.00	1.61	0.00	0.00	0.74
time (sec)	N/A	0.156	0.100	0.863	0.000	0.250	0.000	0.000	27.605

Problem 183	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	176	176	142	122	0	268	0	0	59
N.S.	1	1.00	0.81	0.69	0.00	1.52	0.00	0.00	0.34
time (sec)	N/A	0.149	0.124	0.847	0.000	0.257	0.000	0.000	29.131

Problem 184	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	199	199	105	139	0	440	0	0	79
N.S.	1	1.00	0.53	0.70	0.00	2.21	0.00	0.00	0.40
time (sec)	N/A	0.169	0.181	0.844	0.000	0.284	0.000	0.000	29.235

Problem 185	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	201	201	109	139	0	493	0	0	78
N.S.	1	1.00	0.54	0.69	0.00	2.45	0.00	0.00	0.39
time (sec)	N/A	0.160	0.222	0.869	0.000	0.255	0.000	0.000	31.702

Problem 186	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	49	49	137	39	131	32	39	50	38
N.S.	1	1.00	2.80	0.80	2.67	0.65	0.80	1.02	0.78
time (sec)	N/A	0.071	0.090	0.485	0.229	0.247	0.120	0.286	28.442

Problem 187	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	43	43	66	33	126	78	63	41	40
N.S.	1	1.00	1.53	0.77	2.93	1.81	1.47	0.95	0.93
time (sec)	N/A	0.052	0.023	0.466	0.221	0.243	0.115	0.297	27.487

Problem 188	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	35	35	118	28	109	23	27	41	27
N.S.	1	1.00	3.37	0.80	3.11	0.66	0.77	1.17	0.77
time (sec)	N/A	0.040	0.020	0.456	0.207	0.237	0.118	0.275	28.088

Problem 189	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	27	27	42	22	94	49	29	32	29
N.S.	1	1.00	1.56	0.81	3.48	1.81	1.07	1.19	1.07
time (sec)	N/A	0.018	0.013	0.506	0.205	0.260	0.112	0.284	27.235

Problem 190	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	A	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	14	14	29	17	10	18	17	75	21
N.S.	1	1.00	2.07	1.21	0.71	1.29	1.21	5.36	1.50
time (sec)	N/A	0.015	0.029	0.625	0.203	0.234	0.159	0.265	27.846

Problem 191	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	29	29	44	24	99	36	29	34	31
N.S.	1	1.00	1.52	0.83	3.41	1.24	1.00	1.17	1.07
time (sec)	N/A	0.041	0.034	0.202	0.245	0.243	0.127	0.287	26.991

Problem 192	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	36	36	136	38	135	39	39	49	37
N.S.	1	1.00	3.78	1.06	3.75	1.08	1.08	1.36	1.03
time (sec)	N/A	0.044	0.046	0.211	0.215	0.235	0.196	0.267	27.462

Problem 193	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	45	45	70	35	139	55	54	43	44
N.S.	1	1.00	1.56	0.78	3.09	1.22	1.20	0.96	0.98
time (sec)	N/A	0.049	0.051	0.220	0.211	0.237	0.158	0.277	27.507

Problem 194	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	67	67	162	54	345	70	54	139	55
N.S.	1	1.00	2.42	0.81	5.15	1.04	0.81	2.07	0.82
time (sec)	N/A	0.117	0.259	1.527	0.203	0.249	0.175	0.310	28.028

Problem 195	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	64	64	100	48	335	102	60	83	57
N.S.	1	1.00	1.56	0.75	5.23	1.59	0.94	1.30	0.89
time (sec)	N/A	0.095	0.132	1.071	0.220	0.243	0.179	0.307	27.396

Problem 196	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	55	55	142	44	290	61	42	118	45
N.S.	1	1.00	2.58	0.80	5.27	1.11	0.76	2.15	0.82
time (sec)	N/A	0.074	0.096	1.026	0.219	0.237	0.158	0.309	26.693

Problem 197	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	48	48	70	36	270	72	42	79	44
N.S.	1	1.00	1.46	0.75	5.62	1.50	0.88	1.65	0.92
time (sec)	N/A	0.046	0.059	1.365	0.217	0.245	0.161	0.288	26.475

Problem 198	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	C	A	A	B	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	18	18	34	21	19	34	20	32	16
N.S.	1	1.00	1.89	1.17	1.06	1.89	1.11	1.78	0.89
time (sec)	N/A	0.029	0.048	0.878	0.288	0.236	0.173	0.261	27.749

Problem 199	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	A	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	64	64	72	38	276	74	46	87	47
N.S.	1	1.00	1.12	0.59	4.31	1.16	0.72	1.36	0.73
time (sec)	N/A	0.076	0.095	2.098	0.220	0.240	0.214	0.308	27.474

Problem 200	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	F(-2)	A	A	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	57	57	153	53	0	81	60	190	60
N.S.	1	1.00	2.68	0.93	0.00	1.42	1.05	3.33	1.05
time (sec)	N/A	0.070	0.199	3.084	0.000	0.237	0.267	0.322	27.571

Problem 201	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	70	70	103	0	0	0	0	0	0
N.S.	1	1.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.058	0.235	0.000	0.000	0.000	0.000	0.000	0.000

Problem 202	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	77	77	84	0	0	0	0	0	0
N.S.	1	1.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.131	0.174	0.000	0.000	0.000	0.000	0.000	0.000

Problem 203	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	169	169	122	0	0	0	0	0	0
N.S.	1	1.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.266	0.214	0.000	0.000	0.000	0.000	0.000	0.000

Problem 204	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	142	142	330	0	0	0	0	0	0
N.S.	1	1.00	2.32	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.066	0.503	0.000	0.000	0.000	0.000	0.000	0.000

Problem 205	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	162	162	157	0	0	0	0	0	0
N.S.	1	1.00	0.97	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.137	0.755	0.000	0.000	0.000	0.000	0.000	0.000

Problem 206	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	238	0	0	0	0	0	0
N.S.	1	1.00	1.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.061	0.410	0.000	0.000	0.000	0.000	0.000	0.000

Problem 207	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	238	0	0	0	0	0	0
N.S.	1	1.00	1.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.066	0.428	0.000	0.000	0.000	0.000	0.000	0.000

Problem 208	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	120	120	238	0	0	0	0	0	0
N.S.	1	1.00	1.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.062	0.400	0.000	0.000	0.000	0.000	0.000	0.000

Problem 209	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	70	70	220	0	0	0	0	0	0
N.S.	1	1.00	3.14	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.074	4.273	0.000	0.000	0.000	0.000	0.000	0.000

Problem 210	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	74	74	229	0	0	0	0	0	0
N.S.	1	1.00	3.09	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.064	4.376	0.000	0.000	0.000	0.000	0.000	0.000

Problem 211	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	68	68	219	0	0	0	0	0	0
N.S.	1	1.00	3.22	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.065	4.312	0.000	0.000	0.000	0.000	0.000	0.000

Problem 212	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	66	66	141	0	0	0	0	0	0
N.S.	1	1.00	2.14	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.062	8.063	0.000	0.000	0.000	0.000	0.000	0.000

Problem 213	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	A	B	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	25	25	50	30	24	35	46	0	37
N.S.	1	1.00	2.00	1.20	0.96	1.40	1.84	0.00	1.48
time (sec)	N/A	0.021	0.054	0.287	0.192	0.253	1.342	0.000	29.084

Problem 214	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	70	70	217	0	0	0	0	0	0
N.S.	1	1.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.068	3.477	0.000	0.000	0.000	0.000	0.000	0.000

Problem 215	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	68	68	211	0	0	0	0	0	0
N.S.	1	1.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.071	3.100	0.000	0.000	0.000	0.000	0.000	0.000

Problem 216	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	158	158	175	0	0	0	0	0	0
N.S.	1	1.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.200	3.737	0.000	0.000	0.000	0.000	0.000	0.000

Problem 217	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	162	162	185	0	0	0	0	0	0
N.S.	1	1.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.206	3.954	0.000	0.000	0.000	0.000	0.000	0.000

Problem 218	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	158	158	175	0	0	0	0	0	0
N.S.	1	1.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.200	3.893	0.000	0.000	0.000	0.000	0.000	0.000

Problem 219	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	153	153	178	0	0	0	0	0	0
N.S.	1	1.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.184	7.796	0.000	0.000	0.000	0.000	0.000	0.000

Problem 220	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	C	A	B	B	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	30	30	51	46	322	78	0	0	39
N.S.	1	1.00	1.70	1.53	10.73	2.60	0.00	0.00	1.30
time (sec)	N/A	0.035	0.104	0.325	0.215	0.242	0.000	0.000	27.934

Problem 221	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	156	156	181	0	0	0	0	0	0
N.S.	1	1.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.186	3.325	0.000	0.000	0.000	0.000	0.000	0.000

Problem 222	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	155	155	175	0	0	0	0	0	0
N.S.	1	1.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.216	2.998	0.000	0.000	0.000	0.000	0.000	0.000

Problem 223	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	B	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	44	44	52	42	1713	70	97	0	106
N.S.	1	1.00	1.18	0.95	38.93	1.59	2.20	0.00	2.41
time (sec)	N/A	0.046	0.178	0.504	0.264	0.260	4.274	0.000	29.408

Problem 224	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	C	A	B	B	A	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	44	44	46	44	2172	132	65	0	182
N.S.	1	1.00	1.05	1.00	49.36	3.00	1.48	0.00	4.14
time (sec)	N/A	0.050	0.083	0.742	0.283	0.250	1.389	0.000	35.994

Problem 225	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	B	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	66	66	85	57	5998	129	117	0	246
N.S.	1	1.00	1.29	0.86	90.88	1.95	1.77	0.00	3.73
time (sec)	N/A	0.064	0.093	1.398	0.358	0.254	20.051	0.000	31.839

Problem 226	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	100	100	182	0	0	0	0	0	0
N.S.	1	1.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.091	10.303	0.000	0.000	0.000	0.000	0.000	0.000

Problem 227	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	195	195	547	0	0	0	0	0	0
N.S.	1	1.00	2.81	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.228	14.083	0.000	0.000	0.000	0.000	0.000	0.000

Problem 228	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	350	350	639	0	0	0	0	0	0
N.S.	1	1.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.572	14.561	0.000	0.000	0.000	0.000	0.000	0.000

Problem 229	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	190	190	458	0	0	0	0	0	0
N.S.	1	1.00	2.41	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.212	1.031	0.000	0.000	0.000	0.000	0.000	0.000

Problem 230	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	210	210	205	0	0	0	0	0	0
N.S.	1	1.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.237	1.094	0.000	0.000	0.000	0.000	0.000	0.000

Problem 231	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	201	201	121	139	0	696	0	0	79
N.S.	1	1.00	0.60	0.69	0.00	3.46	0.00	0.00	0.39
time (sec)	N/A	0.159	0.354	1.230	0.000	0.264	0.000	0.000	28.086

Problem 232	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	199	199	177	139	0	627	0	0	80
N.S.	1	1.00	0.89	0.70	0.00	3.15	0.00	0.00	0.40
time (sec)	N/A	0.168	0.263	0.931	0.000	0.268	0.000	0.000	28.336

Problem 233	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	176	176	82	122	0	539	0	0	58
N.S.	1	1.00	0.47	0.69	0.00	3.06	0.00	0.00	0.33
time (sec)	N/A	0.135	0.124	1.026	0.000	0.259	0.000	0.000	26.402

Problem 234	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	176	176	142	122	0	571	0	0	57
N.S.	1	1.00	0.81	0.69	0.00	3.24	0.00	0.00	0.32
time (sec)	N/A	0.144	0.141	1.106	0.000	0.262	0.000	0.000	27.845

Problem 235	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	199	199	105	139	0	756	0	0	79
N.S.	1	1.00	0.53	0.70	0.00	3.80	0.00	0.00	0.40
time (sec)	N/A	0.163	0.177	0.979	0.000	0.261	0.000	0.000	28.251

Problem 236	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F(-1)	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	201	201	109	139	0	793	0	0	80
N.S.	1	1.00	0.54	0.69	0.00	3.95	0.00	0.00	0.40
time (sec)	N/A	0.168	0.280	1.031	0.000	0.254	0.000	0.000	28.876

Problem 237	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	86	0	0	0	0	0	0
N.S.	1	1.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.076	0.789	0.000	0.000	0.000	0.000	0.000	0.000

Problem 238	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	82	0	0	0	0	0	0
N.S.	1	1.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.069	0.774	0.000	0.000	0.000	0.000	0.000	0.000

Problem 239	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	84	0	0	0	0	0	0
N.S.	1	1.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.069	0.635	0.000	0.000	0.000	0.000	0.000	0.000

Problem 240	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	A	B	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	19	19	19	32	31	43	51	0	66
N.S.	1	1.00	1.00	1.68	1.63	2.26	2.68	0.00	3.47
time (sec)	N/A	0.022	0.036	0.470	0.220	0.251	0.987	0.000	29.577

Problem 241	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	85	0	0	0	0	0	0
N.S.	1	1.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.068	0.540	0.000	0.000	0.000	0.000	0.000	0.000

Problem 242	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	81	0	0	0	0	0	0
N.S.	1	1.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.068	0.545	0.000	0.000	0.000	0.000	0.000	0.000

Problem 243	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	160	0	0	0	0	0	0
N.S.	1	1.00	1.84	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.096	4.220	0.000	0.000	0.000	0.000	0.000	0.000

Problem 244	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	79	79	149	0	0	0	0	0	0
N.S.	1	1.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.088	4.052	0.000	0.000	0.000	0.000	0.000	0.000

Problem 245	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	147	0	0	0	0	0	0
N.S.	1	1.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.069	4.806	0.000	0.000	0.000	0.000	0.000	0.000

Problem 246	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	18	18	18	19	165	33	0	0	29
N.S.	1	1.00	1.00	1.06	9.17	1.83	0.00	0.00	1.61
time (sec)	N/A	0.031	0.091	1.899	0.219	0.241	0.000	0.000	29.009

Problem 247	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	160	0	0	0	0	0	0
N.S.	1	1.00	1.84	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.093	2.843	0.000	0.000	0.000	0.000	0.000	0.000

Problem 248	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	79	79	150	0	0	0	0	0	0
N.S.	1	1.00	1.90	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.077	2.812	0.000	0.000	0.000	0.000	0.000	0.000

Problem 249	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	118	0	0	0	0	0	0
N.S.	1	1.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	4.964	0.000	0.000	0.000	0.000	0.000	0.000

Problem 250	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	120	0	0	0	0	0	0
N.S.	1	1.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.076	4.492	0.000	0.000	0.000	0.000	0.000	0.000

Problem 251	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	55	55	55	59	0	100	0	0	178
N.S.	1	1.00	1.00	1.07	0.00	1.82	0.00	0.00	3.24
time (sec)	N/A	0.043	0.072	5.480	0.000	0.269	0.000	0.000	32.525

Problem 252	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	123	0	0	0	0	0	0
N.S.	1	1.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.090	4.616	0.000	0.000	0.000	0.000	0.000	0.000

Problem 253	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	119	0	0	0	0	0	0
N.S.	1	1.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	4.745	0.000	0.000	0.000	0.000	0.000	0.000

Problem 254	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	79	79	204	0	0	0	0	0	0
N.S.	1	1.00	2.58	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	9.430	0.000	0.000	0.000	0.000	0.000	0.000

Problem 255	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	213	0	0	0	0	0	0
N.S.	1	1.00	2.51	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.078	7.882	0.000	0.000	0.000	0.000	0.000	0.000

Problem 256	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	42	42	36	37	1323	52	0	0	49
N.S.	1	1.00	0.86	0.88	31.50	1.24	0.00	0.00	1.17
time (sec)	N/A	0.039	0.100	16.929	0.233	0.231	0.000	0.000	38.040

Problem 257	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	87	87	215	0	0	0	0	0	0
N.S.	1	1.00	2.47	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.085	7.000	0.000	0.000	0.000	0.000	0.000	0.000

Problem 258	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	79	79	203	0	0	0	0	0	0
N.S.	1	1.00	2.57	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.084	7.056	0.000	0.000	0.000	0.000	0.000	0.000

Problem 259	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	C	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	41	175	29	51	1696	47	0	0	87
N.S.	1	4.27	0.71	1.24	41.37	1.15	0.00	0.00	2.12
time (sec)	N/A	0.156	1.052	29.531	0.619	0.255	0.000	0.000	27.400

Problem 260	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	C	A	F	B	C	F(-1)	C	B
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	146	198	0	976	81	0	834	176
N.S.	1	1.33	1.80	0.00	8.87	0.74	0.00	7.58	1.60
time (sec)	N/A	0.237	1.517	0.000	0.308	0.244	0.000	11.637	31.916

Problem 261	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	C	B	A	F	F	B
verified	N/A	Yes	Yes	No	TBD	TBD	TBD	TBD	TBD
size	45	45	127	209	139	55	0	0	46
N.S.	1	1.00	2.82	4.64	3.09	1.22	0.00	0.00	1.02
time (sec)	N/A	0.049	0.120	0.171	0.246	0.243	0.000	0.000	29.922

Problem 262	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	F	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	58	48	137	49	151	55	0	74	56
N.S.	1	0.83	2.36	0.84	2.60	0.95	0.00	1.28	0.97
time (sec)	N/A	0.041	0.090	228.788	0.246	0.237	0.000	1.170	29.524

Problem 263	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	B	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	48	48	139	49	162	57	0	83	39
N.S.	1	1.00	2.90	1.02	3.38	1.19	0.00	1.73	0.81
time (sec)	N/A	0.041	0.110	272.793	0.238	0.238	0.000	1.190	31.772

Problem 264	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	A	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	95	95	117	0	0	149	0	0	0
N.S.	1	1.00	1.23	0.00	0.00	1.57	0.00	0.00	0.00
time (sec)	N/A	0.112	1.220	0.000	0.000	0.252	0.000	0.000	0.000

Problem 265	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	B	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	70	70	117	0	0	149	0	0	0
N.S.	1	1.00	1.67	0.00	0.00	2.13	0.00	0.00	0.00
time (sec)	N/A	0.088	1.251	0.000	0.000	0.259	0.000	0.000	0.000

Problem 266	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	99	0	0	0	0	0	0
N.S.	1	1.00	0.91	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.085	0.265	0.000	0.000	0.000	0.000	0.000	0.000

Problem 267	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	54	54	54	181	0	78	0	0	51
N.S.	1	1.00	1.00	3.35	0.00	1.44	0.00	0.00	0.94
time (sec)	N/A	0.049	0.121	1.440	0.000	0.088	0.000	0.000	26.661

Problem 268	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	415	0	0	0	0	0	0
N.S.	1	1.00	3.81	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.082	4.869	0.000	0.000	0.000	0.000	0.000	0.000

Problem 269	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	89	89	68	250	0	112	0	0	0
N.S.	1	1.00	0.76	2.81	0.00	1.26	0.00	0.00	0.00
time (sec)	N/A	0.063	0.125	1.852	0.000	0.095	0.000	0.000	0.000

Problem 270	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	124	0	0	0	0	0	0
N.S.	1	1.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.079	0.972	0.000	0.000	0.000	0.000	0.000	0.000

Problem 271	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	93	93	69	291	0	145	0	0	0
N.S.	1	1.00	0.74	3.13	0.00	1.56	0.00	0.00	0.00
time (sec)	N/A	0.064	0.158	20.796	0.000	0.084	0.000	0.000	0.000

Problem 272	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	380	0	0	0	0	0	0
N.S.	1	1.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.078	3.479	0.000	0.000	0.000	0.000	0.000	0.000

Problem 273	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	54	54	54	181	0	84	0	0	0
N.S.	1	1.00	1.00	3.35	0.00	1.56	0.00	0.00	0.00
time (sec)	N/A	0.047	0.097	1.687	0.000	0.087	0.000	0.000	0.000

Problem 274	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	168	0	0	0	0	0	0
N.S.	1	1.00	1.54	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.086	1.122	0.000	0.000	0.000	0.000	0.000	0.000

Problem 275	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	93	93	72	247	0	107	0	0	0
N.S.	1	1.00	0.77	2.66	0.00	1.15	0.00	0.00	0.00
time (sec)	N/A	0.064	0.126	2.300	0.000	0.088	0.000	0.000	0.000

Problem 276	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F(-1)	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	867	0	0	0	0	0	0
N.S.	1	1.00	7.88	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.085	7.961	0.000	0.000	0.000	0.000	0.000	0.000

Problem 277	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	B	F	C	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	93	93	83	280	0	113	0	0	0
N.S.	1	1.00	0.89	3.01	0.00	1.22	0.00	0.00	0.00
time (sec)	N/A	0.064	0.177	3.022	0.000	0.093	0.000	0.000	0.000

Problem 278	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	102	102	139	0	0	0	0	0	0
N.S.	1	1.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.099	5.911	0.000	0.000	0.000	0.000	0.000	0.000

Problem 279	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	102	102	198	0	0	0	0	0	0
N.S.	1	1.00	1.94	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.100	15.269	0.000	0.000	0.000	0.000	0.000	0.000

Problem 280	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	103	99	99	0	0	0	0	0	0
N.S.	1	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.080	1.375	0.000	0.000	0.000	0.000	0.000	0.000

Problem 281	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	182	0	0	0	0	0	0
N.S.	1	0.97	1.40	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.116	1.727	0.000	0.000	0.000	0.000	0.000	0.000

Problem 282	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	470	0	0	0	0	0	0
N.S.	1	0.97	3.62	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.107	7.933	0.000	0.000	0.000	0.000	0.000	0.000

Problem 283	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	130	119	0	0	0	0	0	0
N.S.	1	1.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.113	0.662	0.000	0.000	0.000	0.000	0.000	0.000

Problem 284	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	129	126	437	0	0	0	0	0	0
N.S.	1	0.98	3.39	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.112	5.650	0.000	0.000	0.000	0.000	0.000	0.000

Problem 285	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	202	0	0	0	0	0	0
N.S.	1	0.97	1.55	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.116	2.076	0.000	0.000	0.000	0.000	0.000	0.000

Problem 286	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	139	133	169	0	0	0	0	0	0
N.S.	1	0.96	1.22	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.148	1.175	0.000	0.000	0.000	0.000	0.000	0.000

Problem 287	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	106	106	142	0	0	0	0	0	0
N.S.	1	1.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.111	0.835	0.000	0.000	0.000	0.000	0.000	0.000

Problem 288	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	107	107	142	0	0	0	0	0	0
N.S.	1	1.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.084	0.665	0.000	0.000	0.000	0.000	0.000	0.000

Problem 289	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	86	86	82	0	0	0	0	0	0
N.S.	1	1.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.085	1.150	0.000	0.000	0.000	0.000	0.000	0.000

Problem 290	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	86	86	78	0	0	0	0	0	0
N.S.	1	1.00	0.91	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.071	1.114	0.000	0.000	0.000	0.000	0.000	0.000

Problem 291	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	84	84	80	0	0	0	0	0	0
N.S.	1	1.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.056	0.914	0.000	0.000	0.000	0.000	0.000	0.000

Problem 292	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	A	B	A	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	20	20	54	24	32	45	49	0	68
N.S.	1	1.00	2.70	1.20	1.60	2.25	2.45	0.00	3.40
time (sec)	N/A	0.018	0.048	0.405	0.199	0.255	1.035	0.000	28.952

Problem 293	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	82	0	0	0	0	0	0
N.S.	1	1.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.073	0.815	0.000	0.000	0.000	0.000	0.000	0.000

Problem 294	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	85	85	78	0	0	0	0	0	0
N.S.	1	1.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.076	0.791	0.000	0.000	0.000	0.000	0.000	0.000

Problem 295	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	84	84	146	0	0	0	0	0	0
N.S.	1	1.00	1.74	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.073	3.932	0.000	0.000	0.000	0.000	0.000	0.000

Problem 296	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	19	19	19	20	168	34	0	0	29
N.S.	1	1.00	1.00	1.05	8.84	1.79	0.00	0.00	1.53
time (sec)	N/A	0.031	0.083	1.032	0.227	0.241	0.000	0.000	29.770

Problem 297	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	84	84	117	0	0	0	0	0	0
N.S.	1	1.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.083	4.782	0.000	0.000	0.000	0.000	0.000	0.000

Problem 298	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	B	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	55	55	107	61	2168	110	0	0	177
N.S.	1	1.00	1.95	1.11	39.42	2.00	0.00	0.00	3.22
time (sec)	N/A	0.048	0.103	1.909	0.297	0.261	0.000	0.000	32.066

Problem 299	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	84	84	221	0	0	0	0	0	0
N.S.	1	1.00	2.63	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.076	11.036	0.000	0.000	0.000	0.000	0.000	0.000

Problem 300	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	43	43	56	36	1332	71	0	0	49
N.S.	1	1.00	1.30	0.84	30.98	1.65	0.00	0.00	1.14
time (sec)	N/A	0.042	0.074	4.480	0.245	0.258	0.000	0.000	38.374

Problem 301	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	C	A	A	B	A	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	42	172	30	82	1701	50	0	0	85
N.S.	1	4.10	0.71	1.95	40.50	1.19	0.00	0.00	2.02
time (sec)	N/A	0.146	0.409	14.067	0.503	0.237	0.000	0.000	28.652

Problem 302	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	C	A	A	B	C	F(-1)	C	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	110	142	79	123	974	83	0	839	171
N.S.	1	1.29	0.72	1.12	8.85	0.75	0.00	7.63	1.55
time (sec)	N/A	0.210	1.514	217.824	0.314	0.249	0.000	11.515	32.421

Problem 303	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	C	B	A	F	F	B
verified	N/A	Yes	Yes	No	TBD	TBD	TBD	TBD	TBD
size	49	49	127	211	139	56	0	0	45
N.S.	1	1.00	2.59	4.31	2.84	1.14	0.00	0.00	0.92
time (sec)	N/A	0.060	0.157	0.218	0.242	0.231	0.000	0.000	28.933

Problem 304	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	A	F	A	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	58	51	137	68	153	57	0	74	55
N.S.	1	0.88	2.36	1.17	2.64	0.98	0.00	1.28	0.95
time (sec)	N/A	0.048	0.118	265.292	0.256	0.239	0.000	1.115	28.872

Problem 305	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	A	B	B	F	B	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	51	51	137	68	162	57	0	83	38
N.S.	1	1.00	2.69	1.33	3.18	1.12	0.00	1.63	0.75
time (sec)	N/A	0.048	0.122	261.677	0.262	0.238	0.000	1.128	31.431

Problem 306	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	A	F	F	F(-1)
verified	N/A	Yes	No	N/A	TBD	TBD	TBD	TBD	TBD
size	96	96	155	0	0	150	0	0	0
N.S.	1	1.00	1.61	0.00	0.00	1.56	0.00	0.00	0.00
time (sec)	N/A	0.117	1.318	0.000	0.000	0.244	0.000	0.000	0.000

Problem 307	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	B	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	71	71	128	0	0	150	0	0	0
N.S.	1	1.00	1.80	0.00	0.00	2.11	0.00	0.00	0.00
time (sec)	N/A	0.093	2.143	0.000	0.000	0.256	0.000	0.000	0.000

Problem 308	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	115	0	0	0	0	0	0
N.S.	1	1.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.091	0.342	0.000	0.000	0.000	0.000	0.000	0.000

Problem 309	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	B
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	59	59	58	102	0	78	0	0	89
N.S.	1	1.00	0.98	1.73	0.00	1.32	0.00	0.00	1.51
time (sec)	N/A	0.055	0.114	1.195	0.000	0.083	0.000	0.000	27.529

Problem 310	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	411	0	0	0	0	0	0
N.S.	1	1.00	3.77	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.098	4.678	0.000	0.000	0.000	0.000	0.000	0.000

Problem 311	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F(-1)	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	94	94	72	190	0	111	0	0	0
N.S.	1	1.00	0.77	2.02	0.00	1.18	0.00	0.00	0.00
time (sec)	N/A	0.073	0.131	1.318	0.000	0.088	0.000	0.000	0.000

Problem 312	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	174	0	0	0	0	0	0
N.S.	1	1.00	1.60	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.088	1.167	0.000	0.000	0.000	0.000	0.000	0.000

Problem 313	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	73	131	0	145	0	0	0
N.S.	1	1.00	0.74	1.34	0.00	1.48	0.00	0.00	0.00
time (sec)	N/A	0.072	0.170	1.451	0.000	0.084	0.000	0.000	0.000

Problem 314	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	377	0	0	0	0	0	0
N.S.	1	1.00	3.43	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.090	3.205	0.000	0.000	0.000	0.000	0.000	0.000

Problem 315	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	59	59	58	129	0	82	0	0	0
N.S.	1	1.00	0.98	2.19	0.00	1.39	0.00	0.00	0.00
time (sec)	N/A	0.052	0.096	1.224	0.000	0.093	0.000	0.000	0.000

Problem 316	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	109	109	186	0	0	0	0	0	0
N.S.	1	1.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.087	1.607	0.000	0.000	0.000	0.000	0.000	0.000

Problem 317	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	76	131	0	107	0	0	0
N.S.	1	1.00	0.78	1.34	0.00	1.09	0.00	0.00	0.00
time (sec)	N/A	0.074	0.152	1.316	0.000	0.087	0.000	0.000	0.000

Problem 318	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	110	110	579	0	0	0	0	0	0
N.S.	1	1.00	5.26	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.090	7.475	0.000	0.000	0.000	0.000	0.000	0.000

Problem 319	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	A	F	C	F(-1)	F	F(-1)
verified	N/A	Yes	Yes	Yes	TBD	TBD	TBD	TBD	TBD
size	98	98	88	205	0	130	0	0	0
N.S.	1	1.00	0.90	2.09	0.00	1.33	0.00	0.00	0.00
time (sec)	N/A	0.063	0.156	1.317	0.000	0.086	0.000	0.000	0.000

Problem 320	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	122	122	367	0	0	0	0	0	0
N.S.	1	1.00	3.01	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.122	1.756	0.000	0.000	0.000	0.000	0.000	0.000

Problem 321	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	119	119	225	0	0	0	0	0	0
N.S.	1	1.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.109	13.656	0.000	0.000	0.000	0.000	0.000	0.000

Problem 322	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	123	118	181	0	0	0	0	0	0
N.S.	1	0.96	1.47	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.091	0.295	0.000	0.000	0.000	0.000	0.000	0.000

Problem 323	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	165	0	0	0	0	0	0
N.S.	1	0.97	1.27	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.115	2.284	0.000	0.000	0.000	0.000	0.000	0.000

Problem 324	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F(-1)	F(-1)	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	466	0	0	0	0	0	0
N.S.	1	0.97	3.58	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.123	7.342	0.000	0.000	0.000	0.000	0.000	0.000

Problem 325	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	130	138	0	0	0	0	0	0
N.S.	1	1.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.105	0.688	0.000	0.000	0.000	0.000	0.000	0.000

Problem 326	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	B	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	129	126	441	0	0	0	0	0	0
N.S.	1	0.98	3.42	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.115	5.482	0.000	0.000	0.000	0.000	0.000	0.000

Problem 327	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F(-2)	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	130	126	218	0	0	0	0	0	0
N.S.	1	0.97	1.68	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.122	1.720	0.000	0.000	0.000	0.000	0.000	0.000

Problem 328	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	139	133	169	0	0	0	0	0	0
N.S.	1	0.96	1.22	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.130	1.285	0.000	0.000	0.000	0.000	0.000	0.000

Problem 329	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	106	106	142	0	0	0	0	0	0
N.S.	1	1.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.104	0.948	0.000	0.000	0.000	0.000	0.000	0.000

Problem 330	Optimal	Rubi	MMA	Maple	Maxima	Fricas	Sympy	Giac	Mupad
grade	N/A	A	A	F	F	F	F	F	F(-1)
verified	N/A	Yes	Yes	N/A	TBD	TBD	TBD	TBD	TBD
size	107	107	142	0	0	0	0	0	0
N.S.	1	1.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00
time (sec)	N/A	0.084	0.760	0.000	0.000	0.000	0.000	0.000	0.000

2.3 Detailed conclusion table specific for Rubi results

The following table is specific to Rubi only. It gives additional statistics for each integral. the column **steps** is the number of steps used by Rubi to obtain the antiderivative. The **rules** column is the number of unique rules used. The **integrand size** column is the leaf size of the integrand. Finally the ratio $\frac{\text{number of rules}}{\text{integrand size}}$ is also given. The larger this ratio is, the harder the integral is to solve. In this test file, problem number [155] had the largest ratio of [.5714000000000000019]

Table 2.1: Rubi specific breakdown of results for each integral

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
1	A	1	1	1.00	15	0.067
2	A	1	1	1.00	13	0.077
3	A	1	1	1.00	11	0.091
4	A	2	1	1.00	15	0.067
5	A	1	1	1.00	15	0.067
6	A	1	1	1.00	15	0.067
7	A	2	2	1.00	17	0.118
8	A	2	2	1.00	15	0.133
9	A	2	2	1.00	13	0.154
10	A	3	2	1.00	17	0.118
11	A	2	2	1.00	17	0.118
12	A	2	2	1.00	17	0.118
13	A	2	2	1.00	17	0.118
14	A	2	2	1.00	15	0.133
15	A	2	2	1.00	13	0.154
16	A	3	1	1.00	17	0.059
17	A	2	2	1.00	17	0.118
18	A	2	2	1.00	17	0.118
19	A	3	2	1.00	17	0.118
20	A	3	2	1.00	15	0.133
21	A	3	2	1.00	13	0.154
22	A	4	2	1.00	17	0.118
23	A	3	2	1.00	17	0.118
24	A	3	2	1.00	17	0.118

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
25	A	2	1	1.00	7	0.143
26	A	3	2	1.00	28	0.071
27	A	3	2	1.00	24	0.083
28	A	3	2	1.00	22	0.091
29	A	3	2	1.00	19	0.105
30	A	2	2	1.00	6	0.333
31	A	3	2	1.00	23	0.087
32	A	3	2	1.00	24	0.083
33	A	3	2	1.00	33	0.061
34	A	3	2	1.00	28	0.071
35	A	3	2	1.00	23	0.087
36	A	3	2	1.00	24	0.083
37	A	2	2	1.00	8	0.250
38	A	3	2	1.00	28	0.071
39	A	3	2	1.00	25	0.080
40	A	2	2	1.00	33	0.061
41	A	3	2	1.00	25	0.080
42	A	3	2	1.00	26	0.077
43	A	3	2	1.00	24	0.083
44	A	2	2	1.00	8	0.250
45	A	3	2	1.00	28	0.071
46	A	3	2	1.00	28	0.071
47	A	3	2	1.00	28	0.071
48	A	3	2	1.00	15	0.133
49	A	3	2	1.00	30	0.067
50	A	3	2	1.00	17	0.118
51	A	3	2	1.00	30	0.067
52	A	3	2	1.00	17	0.118
53	A	3	3	1.00	17	0.176
54	A	3	3	1.00	15	0.200
55	A	2	1	1.00	19	0.053
56	A	3	3	1.00	19	0.158
57	A	3	3	1.00	19	0.158
58	A	3	3	1.00	17	0.176
59	A	3	3	1.00	15	0.200

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
60	A	3	2	1.00	19	0.105
61	A	3	3	1.00	19	0.158
62	A	3	3	1.00	19	0.158
63	A	3	3	1.00	15	0.200
64	A	2	1	1.00	19	0.053
65	A	3	3	1.00	15	0.200
66	A	3	2	1.00	19	0.105
67	A	3	3	1.00	15	0.200
68	A	3	2	1.00	19	0.105
69	A	3	3	1.00	15	0.200
70	A	3	2	1.00	21	0.095
71	A	2	2	1.00	21	0.095
72	A	2	2	1.00	21	0.095
73	A	1	1	1.00	19	0.053
74	A	3	3	0.97	23	0.130
75	A	3	3	0.97	23	0.130
76	A	3	3	1.00	23	0.130
77	A	3	3	0.97	23	0.130
78	A	3	3	0.97	23	0.130
79	A	3	3	1.00	21	0.143
80	A	3	3	1.00	17	0.176
81	A	3	3	1.00	15	0.200
82	A	3	3	1.00	13	0.231
83	A	2	1	1.00	17	0.059
84	A	3	3	1.00	17	0.176
85	A	3	3	1.00	17	0.176
86	A	1	1	1.00	15	0.067
87	A	1	1	1.00	13	0.077
88	A	1	1	1.00	11	0.091
89	A	2	1	1.00	15	0.067
90	A	1	1	1.00	15	0.067
91	A	2	2	1.00	17	0.118
92	A	2	2	1.00	15	0.133
93	A	2	2	1.00	13	0.154
94	A	3	2	1.00	17	0.118

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
95	A	2	2	1.00	17	0.118
96	A	2	2	1.00	17	0.118
97	A	2	2	1.00	15	0.133
98	A	2	2	1.00	13	0.154
99	A	3	1	1.00	17	0.059
100	A	2	2	1.00	17	0.118
101	A	3	2	1.00	13	0.154
102	A	4	2	1.00	17	0.118
103	A	2	1	1.00	7	0.143
104	A	3	2	1.00	28	0.071
105	A	3	2	1.00	19	0.105
106	A	3	2	1.00	33	0.061
107	A	3	2	1.00	24	0.083
108	A	2	2	1.00	33	0.061
109	A	3	2	1.00	24	0.083
110	A	3	3	1.00	15	0.200
111	A	2	1	1.00	19	0.053
112	A	3	3	1.00	15	0.200
113	A	3	2	1.00	19	0.105
114	A	3	3	1.00	15	0.200
115	A	3	2	1.00	19	0.105
116	A	3	3	1.00	15	0.200
117	A	2	1	1.00	19	0.053
118	A	3	3	1.00	15	0.200
119	A	3	2	1.00	19	0.105
120	A	3	3	1.00	15	0.200
121	A	3	2	1.00	19	0.105
122	A	3	3	1.00	15	0.200
123	A	3	2	0.98	17	0.118
124	A	2	2	1.00	17	0.118
125	A	2	2	1.00	17	0.118
126	A	1	1	1.00	15	0.067
127	A	3	3	0.97	19	0.158
128	A	3	3	0.98	19	0.158
129	A	3	3	1.00	19	0.158

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
130	A	3	3	0.97	19	0.158
131	A	3	3	0.97	19	0.158
132	A	3	3	1.00	21	0.143
133	A	3	3	1.00	15	0.200
134	A	3	3	1.00	13	0.231
135	A	5	4	1.00	13	0.308
136	A	5	5	1.00	13	0.385
137	A	5	4	1.00	11	0.364
138	A	4	4	1.00	9	0.444
139	A	2	1	1.00	13	0.077
140	A	4	4	1.00	13	0.308
141	A	4	3	1.00	13	0.231
142	A	5	5	1.00	13	0.385
143	A	5	4	1.00	15	0.267
144	A	6	6	1.00	15	0.400
145	A	5	4	1.00	13	0.308
146	A	6	5	1.00	11	0.454
147	A	3	2	1.00	15	0.133
148	A	5	5	1.00	15	0.333
149	A	4	3	1.00	15	0.200
150	A	4	4	1.00	15	0.267
151	A	5	5	1.00	17	0.294
152	A	6	6	1.00	17	0.353
153	A	4	4	1.00	9	0.444
154	A	4	4	1.00	15	0.267
155	A	4	4	1.00	7	0.571
156	A	4	4	1.00	9	0.444
157	A	4	4	1.00	9	0.444
158	A	4	4	1.00	17	0.235
159	A	4	4	1.00	17	0.235
160	A	4	4	1.00	15	0.267
161	A	4	4	1.00	13	0.308
162	A	2	1	1.00	17	0.059
163	A	4	4	1.00	17	0.235
164	A	4	4	1.00	17	0.235

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
165	A	5	5	1.00	19	0.263
166	A	5	5	1.00	19	0.263
167	A	5	5	1.00	17	0.294
168	A	5	5	1.00	15	0.333
169	A	3	2	1.00	19	0.105
170	A	5	5	1.00	19	0.263
171	A	5	5	1.00	19	0.263
172	A	3	2	1.00	17	0.118
173	A	4	2	1.00	17	0.118
174	A	4	2	1.00	17	0.118
175	A	4	4	1.00	19	0.210
176	A	5	5	1.00	21	0.238
177	A	6	6	1.00	21	0.286
178	A	5	5	1.00	15	0.333
179	A	5	5	1.00	21	0.238
180	A	13	9	1.00	19	0.474
181	A	13	9	1.00	19	0.474
182	A	12	8	1.00	19	0.421
183	A	12	8	1.00	19	0.421
184	A	13	9	1.00	19	0.474
185	A	13	9	1.00	19	0.474
186	A	5	4	1.00	13	0.308
187	A	5	5	1.00	13	0.385
188	A	5	4	1.00	11	0.364
189	A	4	4	1.00	9	0.444
190	A	2	1	1.00	13	0.077
191	A	4	4	1.00	13	0.308
192	A	4	3	1.00	13	0.231
193	A	5	5	1.00	13	0.385
194	A	5	4	1.00	15	0.267
195	A	6	6	1.00	15	0.400
196	A	5	4	1.00	13	0.308
197	A	6	5	1.00	11	0.454
198	A	3	2	1.00	15	0.133
199	A	5	5	1.00	15	0.333

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
200	A	4	3	1.00	15	0.200
201	A	4	4	1.00	15	0.267
202	A	5	5	1.00	17	0.294
203	A	6	6	1.00	17	0.353
204	A	4	4	1.00	9	0.444
205	A	4	4	1.00	15	0.267
206	A	4	4	1.00	7	0.571
207	A	4	4	1.00	9	0.444
208	A	4	4	1.00	9	0.444
209	A	4	4	1.00	17	0.235
210	A	4	4	1.00	17	0.235
211	A	4	4	1.00	15	0.267
212	A	4	4	1.00	13	0.308
213	A	2	1	1.00	17	0.059
214	A	4	4	1.00	17	0.235
215	A	4	4	1.00	17	0.235
216	A	5	5	1.00	19	0.263
217	A	5	5	1.00	19	0.263
218	A	5	5	1.00	17	0.294
219	A	5	5	1.00	15	0.333
220	A	3	2	1.00	19	0.105
221	A	5	5	1.00	19	0.263
222	A	5	5	1.00	19	0.263
223	A	3	2	1.00	17	0.118
224	A	4	2	1.00	17	0.118
225	A	4	2	1.00	17	0.118
226	A	4	4	1.00	19	0.210
227	A	5	5	1.00	21	0.238
228	A	6	6	1.00	21	0.286
229	A	5	5	1.00	15	0.333
230	A	5	5	1.00	21	0.238
231	A	13	9	1.00	19	0.474
232	A	13	9	1.00	19	0.474
233	A	12	8	1.00	19	0.421
234	A	12	8	1.00	19	0.421

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
235	A	13	9	1.00	19	0.474
236	A	13	9	1.00	19	0.474
237	A	3	3	1.00	15	0.200
238	A	3	3	1.00	13	0.231
239	A	3	3	1.00	11	0.273
240	A	2	1	1.00	15	0.067
241	A	3	3	1.00	15	0.200
242	A	3	3	1.00	15	0.200
243	A	3	3	1.00	17	0.176
244	A	3	3	1.00	15	0.200
245	A	3	3	1.00	13	0.231
246	A	3	2	1.00	17	0.118
247	A	3	3	1.00	17	0.176
248	A	3	3	1.00	17	0.176
249	A	3	3	1.00	15	0.200
250	A	3	3	1.00	13	0.231
251	A	3	2	1.00	17	0.118
252	A	3	3	1.00	17	0.176
253	A	3	3	1.00	17	0.176
254	A	3	3	1.00	15	0.200
255	A	3	3	1.00	13	0.231
256	A	3	1	1.00	17	0.059
257	A	3	3	1.00	17	0.176
258	A	3	3	1.00	17	0.176
259	C	7	3	4.27	44	0.068
260	C	3	3	1.33	31	0.097
261	A	3	3	1.00	17	0.176
262	A	3	3	0.83	17	0.176
263	A	3	3	1.00	17	0.176
264	A	3	3	1.00	23	0.130
265	A	3	3	1.00	23	0.130
266	A	3	3	1.00	15	0.200
267	A	3	2	1.00	19	0.105
268	A	3	3	1.00	15	0.200
269	A	4	3	1.00	19	0.158

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
270	A	3	3	1.00	15	0.200
271	A	4	3	1.00	19	0.158
272	A	3	3	1.00	15	0.200
273	A	3	2	1.00	19	0.105
274	A	3	3	1.00	15	0.200
275	A	4	3	1.00	19	0.158
276	A	3	3	1.00	15	0.200
277	A	4	3	1.00	19	0.158
278	A	3	3	1.00	17	0.176
279	A	3	3	1.00	17	0.176
280	A	3	3	0.96	15	0.200
281	A	3	3	0.97	19	0.158
282	A	3	3	0.97	19	0.158
283	A	3	3	1.00	19	0.158
284	A	3	3	0.98	19	0.158
285	A	3	3	0.97	19	0.158
286	A	3	3	0.96	21	0.143
287	A	3	3	1.00	15	0.200
288	A	3	3	1.00	13	0.231
289	A	3	3	1.00	15	0.200
290	A	3	3	1.00	13	0.231
291	A	3	3	1.00	11	0.273
292	A	2	1	1.00	15	0.067
293	A	3	3	1.00	15	0.200
294	A	3	3	1.00	15	0.200
295	A	3	3	1.00	13	0.231
296	A	3	2	1.00	17	0.118
297	A	3	3	1.00	13	0.231
298	A	3	2	1.00	17	0.118
299	A	3	3	1.00	13	0.231
300	A	3	1	1.00	17	0.059
301	C	7	3	4.10	44	0.068
302	C	3	3	1.29	31	0.097
303	A	3	3	1.00	17	0.176
304	A	3	3	0.88	17	0.176

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Table 2.1 – continued from previous page

#	grade	number of steps used	number of unique rules	normalized antiderivative leaf size	integrand leaf size	$\frac{\text{number of rules}}{\text{integrand leaf size}}$
305	A	3	3	1.00	17	0.176
306	A	3	3	1.00	23	0.130
307	A	3	3	1.00	23	0.130
308	A	3	3	1.00	15	0.200
309	A	3	2	1.00	19	0.105
310	A	3	3	1.00	15	0.200
311	A	4	3	1.00	19	0.158
312	A	3	3	1.00	15	0.200
313	A	4	3	1.00	19	0.158
314	A	3	3	1.00	15	0.200
315	A	3	2	1.00	19	0.105
316	A	3	3	1.00	15	0.200
317	A	4	3	1.00	19	0.158
318	A	3	3	1.00	15	0.200
319	A	4	3	1.00	19	0.158
320	A	3	3	1.00	21	0.143
321	A	3	3	1.00	21	0.143
322	A	3	3	0.96	19	0.158
323	A	3	3	0.97	19	0.158
324	A	3	3	0.97	19	0.158
325	A	3	3	1.00	19	0.158
326	A	3	3	0.98	19	0.158
327	A	3	3	0.97	19	0.158
328	A	3	3	0.96	21	0.143
329	A	3	3	1.00	15	0.200
330	A	3	3	1.00	13	0.231

CHAPTER 3

LISTING OF INTEGRALS

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3.167 $\int x\tan^2(d(a+b\log(cx^n)))\,dx$ . . . 1990

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Optimal result

Integrand size = 15, antiderivative size = 57

$$\int x^2 \sin(a+b\log(cx^n))\,dx = -\frac{bnx^3\cos(a+b\log(cx^n))}{9+b^2n^2} + \frac{3x^3\sin(a+b\log(cx^n))}{9+b^2n^2}$$

```
[Out] -b*n*x^3*cos(a+b*ln(c*x^n))/(b^2*n^2+9)+3*x^3*sin(a+b*ln(c*x^n))/(b^2*n^2+9
)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4573}

$$\int x^2 \sin(a+b\log(cx^n))\,dx = \frac{3x^3\sin(a+b\log(cx^n))}{b^2n^2+9} - \frac{bnx^3\cos(a+b\log(cx^n))}{b^2n^2+9}$$

```
[In] Int[x^2*Sin[a + b*Log[c*x^n]],x]
```

```
[Out] -((b*n*x^3*Cos[a + b*Log[c*x^n]])/(9 + b^2*n^2)) + (3*x^3*Sin[a + b*Log[c*x
^n]])/(9 + b^2*n^2)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bnx^3\cos(a+b\log(cx^n))}{9+b^2n^2} + \frac{3x^3\sin(a+b\log(cx^n))}{9+b^2n^2}$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int x^2 \sin \left(a+b \log \left(c x^n\right)\right) \, dx=-\frac{x^3 \left(b n \cos \left(a+b \log \left(c x^n\right)\right)-3 \sin \left(a+b \log \left(c x^n\right)\right)\right)}{9+b^2 n^2}$$

[In] Integrate[x^2*Sin[a + b*Log[c*x^n]],x]

[Out] -((x^3*(b*n*Cos[a + b*Log[c*x^n]] - 3*Sin[a + b*Log[c*x^n]]))/(9 + b^2*n^2)
)

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 478 vs. 2(57) = 114.

Time = 1.64 (sec) , antiderivative size = 479, normalized size of antiderivative = 8.40

method	result
parts	$-\frac{x^{2} b \,{\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)}{n}-\frac{\ln \left(c \right)}{n}} \cos \left(a +b \ln \left(c \,x^{n}\right)\right)}{n \left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{x^{2} {\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)}{n}-\frac{\ln \left(c \right)}{n}} \sin \left(a +b \ln \left(c \,x^{n}\right)\right)}{n^{2} \left(\frac{1}{n^{2}}+b^{2}\right)}-\frac{2 \left(\frac{n \left(\frac{b n \,c^{-\frac{1}{n}} {\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)-n \ln \left(x \right)}{n}} x^{3} \tan \left(\frac{a}{2}+\frac{b \ln \left(c \,x^{n}\right)}{2}\right.}{b^{2} n^{2}+9}\right.}{}\right.}{}$

[In] int(x^2*sin(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)

[Out] -1/n*x^2*b/(1/n^2+b^2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*cos(a+b*ln(c*x^n))+1/n^
2*x^2/(1/n^2+b^2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*sin(a+b*ln(c*x^n))-2/n*(n/(b
^2*n^2+1)*(b*n/(c^(1/n))/(b^2*n^2+9)*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*tan(1
/2*a+1/2*b*ln(c*x^n))^2+6/(c^(1/n))/(b^2*n^2+9)*exp(1/n*(ln(c*x^n)-n*ln(x))
)*x^3*tan(1/2*a+1/2*b*ln(c*x^n))-b*n/(c^(1/n))/(b^2*n^2+9)*exp(1/n*(ln(c*x^
n)-n*ln(x)))*x^3)/(1+tan(1/2*a+1/2*b*ln(c*x^n))^2)-b*n^2/(b^2*n^2+1)*(3/(c^
(1/n))/(b^2*n^2+9)*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3-3/(c^(1/n))/(b^2*n^2+9)
exp(1/n(ln(c*x^n)-n*ln(x)))*x^3*tan(1/2*a+1/2*b*ln(c*x^n))^2+2*b*n/(c^(1/
n))/(b^2*n^2+9)*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*tan(1/2*a+1/2*b*ln(c*x^n))
)/(1+tan(1/2*a+1/2*b*ln(c*x^n))^2))

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 49, normalized size of antiderivative = 0.86

$$\int x^2 \sin(a + b \log(cx^n)) \, dx$$
$$= -\frac{bnx^3 \cos(bn \log(x) + b \log(c) + a) - 3x^3 \sin(bn \log(x) + b \log(c) + a)}{b^2n^2 + 9}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n)),x, algorithm="fricas")
```

```
[Out] -(b*n*x^3*cos(b*n*log(x) + b*log(c) + a) - 3*x^3*sin(b*n*log(x) + b*log(c)
+ a))/(b^2*n^2 + 9)
```

Sympy [F]

$$\int x^2 \sin(a + b \log(cx^n)) \, dx = \begin{cases} \int x^2 \sin\left(a - \frac{3i \log(cx^n)}{n}\right) dx & \text{for } b = -\frac{3i}{n} \\ \int x^2 \sin\left(a + \frac{3i \log(cx^n)}{n}\right) dx & \text{for } b = \frac{3i}{n} \\ -\frac{bnx^3 \cos(a+b \log(cx^n))}{b^2n^2+9} + \frac{3x^3 \sin(a+b \log(cx^n))}{b^2n^2+9} & \text{otherwise} \end{cases}$$

```
[In] integrate(x**2*sin(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((Integral(x**2*sin(a - 3*I*log(c*x**n)/n), x), Eq(b, -3*I/n)), (I
ntegral(x**2*sin(a + 3*I*log(c*x**n)/n), x), Eq(b, 3*I/n)), (-b*n*x**3*cos(
a + b*log(c*x**n))/(b**2*n**2 + 9) + 3*x**3*sin(a + b*log(c*x**n))/(b**2*n*
*2 + 9), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 219 vs. 2(57) = 114.

Time = 0.22 (sec) , antiderivative size = 219, normalized size of antiderivative = 3.84

$$\int x^2 \sin(a + b \log(cx^n)) \, dx =$$
$$-\frac{((b \cos(2b \log(c)) \cos(b \log(c)) + b \sin(2b \log(c)) \sin(b \log(c)) + b \cos(b \log(c)))n - 3 \cos(b \log(c)) \text{s}}{}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] -1/2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) +
 b*cos(b*log(c)))*n - 3*cos(b*log(c))*sin(2*b*log(c)) + 3*cos(2*b*log(c))*s
in(b*log(c)) - 3*sin(b*log(c)))*x^3*cos(b*log(x^n) + a) - ((b*cos(b*log(c))
*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) + b*sin(b*log(c)))*n + 3
*cos(2*b*log(c))*cos(b*log(c)) + 3*sin(2*b*log(c))*sin(b*log(c)) + 3*cos(b*
log(c)))*x^3*sin(b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))
^2)*n^2 + 9*cos(b*log(c))^2 + 9*sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 923 vs. $2(57) = 114$.

Time = 0.35 (sec) , antiderivative size = 923, normalized size of antiderivative = 16.19

$$\int x^2 \sin (a + b \log (c x^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n)),x, algorithm="giac")
```

```
[Out] -1/2*(b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b*n*x^3*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b*n*x^3*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 - b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b*n*x
^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 4*b*n*x^3*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))*tan(1/2*a) - b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - b*n*x^3*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 6*x^3*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 6*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/2*a) + 6*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 6
*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + b*n*x^3*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + b*n*x^3*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - 6*x^3*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c))) - 6*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*x^3*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 6*x
^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2
```

```
*a))/(b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*tan(1/2*a
)^2 + b^2*n^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*tan(1/2*a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 27.25 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int x^2 \sin(a + b\log(cx^n))\,dx = \frac{x^3\,(3\,\sin(a + b\,\ln(c\,x^n)) - b\,n\,\cos(a + b\,\ln(c\,x^n)))}{b^2\,n^2 + 9}$$

```
[In] int(x^2*sin(a + b*log(c*x^n)),x)
[Out] (x^3*(3*sin(a + b*log(c*x^n)) - b*n*cos(a + b*log(c*x^n))))/(b^2*n^2 + 9)
```

3.2 $\int x \sin(a + b \log(cx^n))\,dx$

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Optimal result

Integrand size = 13, antiderivative size = 57

$$\int x \sin(a + b \log(cx^n))\,dx = -\frac{bnx^2 \cos(a + b \log(cx^n))}{4 + b^2n^2} + \frac{2x^2 \sin(a + b \log(cx^n))}{4 + b^2n^2}$$

```
[Out] -b*n*x^2*cos(a+b*ln(c*x^n))/(b^2*n^2+4)+2*x^2*sin(a+b*ln(c*x^n))/(b^2*n^2+4
)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.077, Rules used = {4573}

$$\int x \sin(a + b \log(cx^n))\,dx = \frac{2x^2 \sin(a + b \log(cx^n))}{b^2n^2 + 4} - \frac{bnx^2 \cos(a + b \log(cx^n))}{b^2n^2 + 4}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]],x]
```

```
[Out] -((b*n*x^2*Cos[a + b*Log[c*x^n]])/(4 + b^2*n^2)) + (2*x^2*Sin[a + b*Log[c*x
^n]])/(4 + b^2*n^2)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bnx^2 \cos(a + b \log(cx^n))}{4 + b^2n^2} + \frac{2x^2 \sin(a + b \log(cx^n))}{4 + b^2n^2}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int x \sin (a+b \log (c x^n)) \, dx = -\frac{x^2 (b n \cos (a+b \log (c x^n))-2 \sin (a+b \log (c x^n)))}{4+b^2 n^2}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]],x]
```

```
[Out] -((x^2*(b*n*Cos[a + b*Log[c*x^n]] - 2*Sin[a + b*Log[c*x^n]]))/(4 + b^2*n^2)
)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 469 vs. 2(57) = 114.

Time = 1.22 (sec) , antiderivative size = 470, normalized size of antiderivative = 8.25

method	result
parts	$-\frac{x b \,{\mathrm e}^{\frac{\ln (c \,x^{n})}{n}-\frac{\ln (c)}{n}} \cos (a+b \ln (c \,x^{n}))}{n \left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{x \,{\mathrm e}^{\frac{\ln (c \,x^{n})}{n}-\frac{\ln (c)}{n}} \sin (a+b \ln (c \,x^{n}))}{n^{2} \left(\frac{1}{n^{2}}+b^{2}\right)}-\frac{\frac{b n \,c^{-\frac{1}{n}} {\mathrm e}^{\frac{\ln (c \,x^{n})-n \ln (x)}{n}} x^{2} \tan \left(\frac{a}{2}+\frac{b \ln (c \,x^{n})}{2}\right)^{2}}{b^{2} n^{2}+4}+}{n \left(\frac{1}{n^{2}}\right.}$

```
[In] int(x*sin(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
```

```
[Out] -1/n*x*b/(1/n^2+b^2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*cos(a+b*ln(c*x^n))+1/n^2*
x/(1/n^2+b^2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*sin(a+b*ln(c*x^n))-1/n*(1/n/(1/n
^2+b^2)*(b*n/(b^2*n^2+4)/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*tan(1/2
*a+1/2*b*ln(c*x^n))^2+4/(b^2*n^2+4)/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*
x^2*tan(1/2*a+1/2*b*ln(c*x^n))-b*n/(b^2*n^2+4)/(c^(1/n))*exp(1/n*(ln(c*x^n)
-n*ln(x)))*x^2)/(1+tan(1/2*a+1/2*b*ln(c*x^n))^2)-b/(1/n^2+b^2)*(2/(b^2*n^2+
4)/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2-2/(b^2*n^2+4)/(c^(1/n))*exp(1
/n*(ln(c*x^n)-n*ln(x)))*x^2*tan(1/2*a+1/2*b*ln(c*x^n))^2+2*b*n/(b^2*n^2+4)/
(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*tan(1/2*a+1/2*b*ln(c*x^n)))/(1+t
an(1/2*a+1/2*b*ln(c*x^n))^2))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 49, normalized size of antiderivative = 0.86

$$\int x\sin\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{bnx^2\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-2\,x^2\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)}{b^2n^2+4}$$

```
[In] integrate(x*sin(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] -(b*n*x^2*cos(b*n*log(x) + b*log(c) + a) - 2*x^2*sin(b*n*log(x) + b*log(c)
+ a))/(b^2*n^2 + 4)
```

Sympy [F]

$$\int x\sin\left(a+b\log\left(cx^n\right)\right)\,dx = \begin{cases} \int x\sin\left(a-\frac{2i\log\left(cx^n\right)}{n}\right)\,dx & \text{for}\ b=-\frac{2i}{n} \\ \int x\sin\left(a+\frac{2i\log\left(cx^n\right)}{n}\right)\,dx & \text{for}\ b=\frac{2i}{n} \\ -\frac{bnx^2\cos\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+4}+\frac{2x^2\sin\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+4} & \text{otherwise} \end{cases}$$

```
[In] integrate(x*sin(a+b*ln(c*x**n)),x)
[Out] Piecewise((Integral(x*sin(a - 2*I*log(c*x**n)/n), x), Eq(b, -2*I/n)), (Inte
gral(x*sin(a + 2*I*log(c*x**n)/n), x), Eq(b, 2*I/n)), (-b*n*x**2*cos(a + b*
log(c*x**n))/(b**2*n**2 + 4) + 2*x**2*sin(a + b*log(c*x**n))/(b**2*n**2 + 4
), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 219 vs. 2(57) = 114.

Time = 0.24 (sec) , antiderivative size = 219, normalized size of antiderivative = 3.84

$$\int x\sin\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{\left(\left(b\cos\left(2\,b\log\left(c\right)\right)\cos\left(b\log\left(c\right)\right)+b\sin\left(2\,b\log\left(c\right)\right)\sin\left(b\log\left(c\right)\right)+b\cos\left(b\log\left(c\right)\right)\right)n-2\,\cos\left(b\log\left(c\right)\right)\sin}{}$$

```
[In] integrate(x*sin(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] -1/2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) +
 b*cos(b*log(c)))*n - 2*cos(b*log(c))*sin(2*b*log(c)) + 2*cos(2*b*log(c))*s
in(b*log(c)) - 2*sin(b*log(c)))*x^2*cos(b*log(x^n) + a) - ((b*cos(b*log(c))
*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) + b*sin(b*log(c)))*n + 2
*cos(2*b*log(c))*cos(b*log(c)) + 2*sin(2*b*log(c))*sin(b*log(c)) + 2*cos(b*
log(c)))*x^2*sin(b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))
^2)*n^2 + 4*cos(b*log(c))^2 + 4*sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 923 vs. $2(57) = 114$.

Time = 0.33 (sec) , antiderivative size = 923, normalized size of antiderivative = 16.19

$$\int x \sin(a + b \log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n)),x, algorithm="giac")
```

```
[Out] -1/2*(b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b*n*x^2*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b*n*x^2*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 - b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b*n*x
^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 4*b*n*x^2*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))*tan(1/2*a) - b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - b*n*x^2*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 4*x^2*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 4*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/2*a) + 4*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 4
*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + b*n*x^2*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + b*n*x^2*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - 4*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c))) - 4*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 4*x^2*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 4*x
^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2
```

```
*a))/(b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*tan(1/2*a
)^2 + b^2*n^2 + 4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
^2 + 4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*tan(1/2*a)^2 + 4)
```

Mupad [B] (verification not implemented)

Time = 27.56 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int x\sin\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^2\,\left(2\,\sin\left(a+b\,\ln\left(c\,x^n\right)\right)-b\,n\,\cos\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}{b^2\,n^2+4}$$

```
[In] int(x*sin(a + b*log(c*x^n)),x)
[Out] (x^2*(2*sin(a + b*log(c*x^n)) - b*n*cos(a + b*log(c*x^n))))/(b^2*n^2 + 4)
```

3.3 $\int \sin(a+b\log(cx^n))\,dx$

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Mathematica [A] (verified) 126
Maple [A] (verified) 126
Fricas [A] (verification not implemented) 126
Sympy [F] 127
Maxima [B] (verification not implemented) 127
Giac [B] (verification not implemented) 127
Mupad [B] (verification not implemented) 128

Optimal result

Integrand size = 11, antiderivative size = 52

$$\int \sin(a+b\log(cx^n))\,dx=-\frac{bnx\cos(a+b\log(cx^n))}{1+b^2n^2}+\frac{x\sin(a+b\log(cx^n))}{1+b^2n^2}$$

```
[Out] -b*n*x*cos(a+b*ln(c*x^n))/(b^2*n^2+1)+x*sin(a+b*ln(c*x^n))/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 52, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.091, Rules used = {4563}

$$\int \sin(a+b\log(cx^n))\,dx=\frac{x\sin(a+b\log(cx^n))}{b^2n^2+1}-\frac{bnx\cos(a+b\log(cx^n))}{b^2n^2+1}$$

```
[In] Int[Sin[a + b*Log[c*x^n]],x]
```

```
[Out] -((b*n*x*Cos[a + b*Log[c*x^n]])/(1 + b^2*n^2)) + (x*Sin[a + b*Log[c*x^n]])/
(1 + b^2*n^2)
```

Rule 4563

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] - Simp[b*d*n*x*(Cos[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rubi steps

$$\text{integral}=-\frac{bnx\cos(a+b\log(cx^n))}{1+b^2n^2}+\frac{x\sin(a+b\log(cx^n))}{1+b^2n^2}$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.77

$$\int \sin(a + b\log(cx^n))\,dx = \frac{x(-bn\cos(a + b\log(cx^n)) + \sin(a + b\log(cx^n)))}{1 + b^2n^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]],x]
[Out] (x*(-(b*n*Cos[a + b*Log[c*x^n]]) + Sin[a + b*Log[c*x^n]]))/(1 + b^2*n^2)
```

Maple [A] (verified)

Time = 0.61 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.83

method	result	size
parallelrisch	$-\frac{x(\cos(a+b\ln(c\,x^n))bn-\sin(a+b\ln(c\,x^n)))}{b^2n^2+1}$	43
default	$\frac{-\frac{b\,\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(a+b\ln(c\,x^n))}{\frac{1}{n^2}+b^2}+\frac{\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin(a+b\ln(c\,x^n))}{n\left(\frac{1}{n^2}+b^2\right)}}{n}$	91

```
[In] int(sin(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
[Out] -x*(cos(a+b*ln(c*x^n))*b*n-sin(a+b*ln(c*x^n)))/(b^2*n^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.87

$$\int \sin(a + b\log(cx^n))\,dx = -\frac{bnx\cos(bn\log(x) + b\log(c) + a) - x\sin(bn\log(x) + b\log(c) + a)}{b^2n^2 + 1}$$

```
[In] integrate(sin(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] -(b*n*x*cos(b*n*log(x) + b*log(c) + a) - x*sin(b*n*log(x) + b*log(c) + a))/
(b^2*n^2 + 1)
```

Sympy [F]

$$\int \sin(a+b\log(cx^n))\,dx = \begin{cases} \int \sin\left(a-\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i}{n} \\ \int \sin\left(a+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i}{n} \\ -\frac{bnx\cos(a+b\log(cx^n))}{b^2n^2+1}+\frac{x\sin(a+b\log(cx^n))}{b^2n^2+1} & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((Integral(sin(a - I*log(c*x**n)/n), x), Eq(b, -I/n)), (Integral(s
in(a + I*log(c*x**n)/n), x), Eq(b, I/n)), (-b*n*x*cos(a + b*log(c*x**n))/(b
**2*n**2 + 1) + x*sin(a + b*log(c*x**n))/(b**2*n**2 + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 206 vs. $2(52) = 104$.

Time = 0.23 (sec) , antiderivative size = 206, normalized size of antiderivative = 3.96

$$\int \sin(a+b\log(cx^n))\,dx = -\frac{((b\cos(2b\log(c))\cos(b\log(c))+b\sin(2b\log(c))\sin(b\log(c))+b\cos(b\log(c)))n-\cos(b\log(c))\sin}{}$$

```
[In] integrate(sin(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] -1/2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) +
 b*cos(b*log(c)))*n - cos(b*log(c))*sin(2*b*log(c)) + cos(2*b*log(c))*sin(b
*log(c)) - sin(b*log(c)))*x*cos(b*log(x^n) + a) - ((b*cos(b*log(c))*sin(2*b
*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) + b*sin(b*log(c)))*n + cos(2*b*l
og(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log(c)) + cos(b*log(c)))*x*sin
(b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2 + cos(b*
log(c))^2 + sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 882 vs. $2(52) = 104$.

Time = 0.29 (sec) , antiderivative size = 882, normalized size of antiderivative = 16.96

$$\int \sin(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n)),x, algorithm="giac")
```

```
[Out] -1/2*(b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b*n*x*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b*n*x*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2 - b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b*n*x*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 4*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(1/2*a) - b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*a)^2 - b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/2*a) + 2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 2
*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 2*x*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(1/2*a)^2 + b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b) + b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b) - 2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*
sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*x*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c))) - 2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a))/(b^2*n^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2 + b^2*n^2*tan(1/2*a)^2 + b^2*n^2 + tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2 + tan(1/2*a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.05 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.77

$$\int \sin(a+b\log(cx^n))\,dx = \frac{x\left(\sin\left(a+b\,\ln\left(c\,x^n\right)\right)-b\,n\,\cos\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}{b^2\,n^2+1}$$

```
[In] int(sin(a + b*log(c*x^n)),x)
```

```
[Out] (x*(sin(a + b*log(c*x^n)) - b*n*cos(a + b*log(c*x^n))))/(b^2*n^2 + 1)
```

3.4 $\int \frac{\sin(a+b\log(cx^n))}{x}\,dx$

Optimal result . . . 129
Rubi [A] (verified) . . . 129
Mathematica [A] (verified) . . . 130
Maple [A] (verified) . . . 130
Fricas [A] (verification not implemented) . . . 130
Sympy [B] (verification not implemented) . . . 131
Maxima [A] (verification not implemented) . . . 131
Giac [F] . . . 131
Mupad [B] (verification not implemented) . . . 132

Optimal result

Integrand size = 15, antiderivative size = 19

$$\int \frac{\sin(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(a+b\log(cx^n))}{bn}$$

```
[Out] -cos(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {2718}

$$\int \frac{\sin(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(a+b\log(cx^n))}{bn}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]/x,x]
```

```
[Out] -(Cos[a + b*Log[c*x^n]]/(b*n))
```

Rule 2718

```
Int[sin[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Cos[c + d*x]/d, x] /; FreeQ
[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \sin(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{\cos(a+b\log(cx^n))}{bn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 38, normalized size of antiderivative = 2.00

$$\int \frac{\sin(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(a)\cos(b\log(cx^n))}{bn} + \frac{\sin(a)\sin(b\log(cx^n))}{bn}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]/x,x]
[Out] -((Cos[a]*Cos[b*Log[c*x^n]])/(b*n)) + (Sin[a]*Sin[b*Log[c*x^n]])/(b*n)
```

Maple [A] (verified)

Time = 0.34 (sec) , antiderivative size = 20, normalized size of antiderivative = 1.05

method	result	size
derivativedivides	$-\frac{\cos(a+b\ln(c\,x^n))}{bn}$	20
default	$-\frac{\cos(a+b\ln(c\,x^n))}{bn}$	20
parallelrisch	$\frac{-\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)-1}{bn}$	26

```
[In] int(sin(a+b*ln(c*x^n))/x,x,method=_RETURNVERBOSE)
[Out] -cos(a+b*ln(c*x^n))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 20, normalized size of antiderivative = 1.05

$$\int \frac{\sin(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(bn\log(x)+b\log(c)+a)}{bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x,x, algorithm="fricas")
[Out] -cos(b*n*log(x) + b*log(c) + a)/(b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 36 vs. $2(15) = 30$.

Time = 0.24 (sec) , antiderivative size = 36, normalized size of antiderivative = 1.89

$$\int \frac{\sin(a + b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\sin(a) & \text{for } b = 0 \wedge (b = 0 \vee n = 0) \\ \log(x)\sin(a + b\log(c)) & \text{for } n = 0 \\ -\frac{\cos(a+b\log(cx^n))}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))/x,x)
```

```
[Out] Piecewise((log(x)*sin(a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*sin(a
+ b*log(c)), Eq(n, 0)), (-cos(a + b*log(c*x**n))/(b*n), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.19 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a + b\log(cx^n))}{x}\,dx = -\frac{\cos(b\log(cx^n) + a)}{bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x,x, algorithm="maxima")
```

```
[Out] -cos(b*log(c*x^n) + a)/(b*n)
```

Giac [F]

$$\int \frac{\sin(a + b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n) + a)}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))/x,x, algorithm="giac")
```

```
[Out] integrate(sin(b*log(c*x^n) + a)/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.82 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a + b\log(cx^n))}{x}\,dx = -\frac{\cos(a + b\,\ln(c\,x^n))}{b\,n}$$

```
[In] int(sin(a + b*log(c*x^n))/x,x)
[Out] -cos(a + b*log(c*x^n))/(b*n)
```

3.5 $\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 133
Rubi [A] (verified) 133
Mathematica [A] (verified) 134
Maple [A] (verified) 134
Fricas [A] (verification not implemented) 134
Sympy [C] (verification not implemented) 135
Maxima [B] (verification not implemented) 135
Giac [F] 136
Mupad [F(-1)] 136

Optimal result

Integrand size = 15, antiderivative size = 57

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx = -\frac{bn\cos(a+b\log(cx^n))}{(1+b^2n^2)\,x} - \frac{\sin(a+b\log(cx^n))}{(1+b^2n^2)\,x}$$

```
[Out] -b*n*cos(a+b*ln(c*x^n))/(b^2*n^2+1)/x-sin(a+b*ln(c*x^n))/(b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4573}

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx = -\frac{\sin(a+b\log(cx^n))}{x(b^2n^2+1)} - \frac{bn\cos(a+b\log(cx^n))}{x(b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] -((b*n*Cos[a + b*Log[c*x^n]])/((1 + b^2*n^2)*x)) - Sin[a + b*Log[c*x^n]]/((
1 + b^2*n^2)*x)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bn\cos(a+b\log(cx^n))}{(1+b^2n^2)\,x} - \frac{\sin(a+b\log(cx^n))}{(1+b^2n^2)\,x}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.70

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx = -\frac{bn\cos(a+b\log(cx^n))+\sin(a+b\log(cx^n))}{x+b^2n^2x}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] -((b*n*Cos[a + b*Log[c*x^n]] + Sin[a + b*Log[c*x^n]])/(x + b^2*n^2*x))
```

Maple [A] (verified)

Time = 0.37 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.79

method	result	size
parallelrisch	$\frac{-\cos(a+b\ln(c\,x^n))bn-\sin(a+b\ln(c\,x^n))}{x(b^2n^2+1)}$	45

```
[In] int(sin(a+b*ln(c*x^n))/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/x/(b^2*n^2+1)*(-cos(a+b*ln(c*x^n))*b*n-sin(a+b*ln(c*x^n)))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx = -\frac{bn\cos(bn\log(x)+b\log(c)+a)+\sin(bn\log(x)+b\log(c)+a)}{(b^2n^2+1)x}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^2,x, algorithm="fricas")
```

```
[Out] -(b*n*cos(b*n*log(x) + b*log(c) + a) + sin(b*n*log(x) + b*log(c) + a))/((b^
2*n^2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 1.02 (sec) , antiderivative size = 192, normalized size of antiderivative = 3.37

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx$$
$$= \begin{cases} -\frac{i\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{2x} + \frac{\log(cx^n)\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{2nx} - \frac{i\log(cx^n)\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{2nx} & \text{for } b=-\frac{i}{n} \\ -\frac{\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{2x} + \frac{\log(cx^n)\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{2nx} + \frac{i\log(cx^n)\cos\left(a+\frac{i\log(cx^n)}{n}\right)}{2nx} & \text{for } b=\frac{i}{n} \\ -\frac{bn\cos(a+b\log(cx^n))}{b^2n^2x+x} - \frac{\sin(a+b\log(cx^n))}{b^2n^2x+x} & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))/x**2,x)
```

```
[Out] Piecewise((-I*cos(a - I*log(c*x**n)/n)/(2*x) + log(c*x**n)*sin(a - I*log(c*
x**n)/n)/(2*n*x) - I*log(c*x**n)*cos(a - I*log(c*x**n)/n)/(2*n*x), Eq(b, -I
/n)), (-sin(a + I*log(c*x**n)/n)/(2*x) + log(c*x**n)*sin(a + I*log(c*x**n)/
n)/(2*n*x) + I*log(c*x**n)*cos(a + I*log(c*x**n)/n)/(2*n*x), Eq(b, I/n)), (
-b*n*cos(a + b*log(c*x**n))/(b**2*n**2*x + x) - sin(a + b*log(c*x**n))/(b**
2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 209 vs. 2(57) = 114.

Time = 0.22 (sec) , antiderivative size = 209, normalized size of antiderivative = 3.67

$$\int \frac{\sin(a+b\log(cx^n))}{x^2}\,dx = -\frac{((b\cos(2\,b\log(c))\cos(b\log(c)) + b\sin(2\,b\log(c))\sin(b\log(c)) + b\cos(b\log(c)))n + \cos(b\log(c))\sin}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^2,x, algorithm="maxima")
```

```
[Out] -1/2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) +
 b*cos(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b
*log(c)) + sin(b*log(c)))*cos(b*log(x^n) + a) - ((b*cos(b*log(c))*sin(2*b*l
og(c)) - b*cos(2*b*log(c))*sin(b*log(c)) + b*sin(b*log(c)))*n - cos(2*b*log
(c))*cos(b*log(c)) - sin(2*b*log(c))*sin(b*log(c)) - cos(b*log(c)))*sin(b*l
og(x^n) + a))/(((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2 + cos(b*log
(c))^2 + sin(b*log(c))^2)*x)
```

Giac [F]

$$\int \frac{\sin(a + b\log(cx^n))}{x^2} dx = \int \frac{\sin(b\log(cx^n) + a)}{x^2} dx$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^2,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin(a + b\log(cx^n))}{x^2} dx = \int \frac{\sin(a + b\ln(c x^n))}{x^2} dx$$

```
[In] int(sin(a + b*log(c*x^n))/x^2,x)
[Out] int(sin(a + b*log(c*x^n))/x^2, x)
```

3.6 $\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx$

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Optimal result

Integrand size = 15, antiderivative size = 57

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = -\frac{bn\cos(a+b\log(cx^n))}{(4+b^2n^2)\,x^2} - \frac{2\sin(a+b\log(cx^n))}{(4+b^2n^2)\,x^2}$$

```
[Out] -b*n*cos(a+b*ln(c*x^n))/(b^2*n^2+4)/x^2-2*sin(a+b*ln(c*x^n))/(b^2*n^2+4)/x^
2
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}} = 0.067$, Rules used = {4573}

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = -\frac{2\sin(a+b\log(cx^n))}{x^2(b^2n^2+4)} - \frac{bn\cos(a+b\log(cx^n))}{x^2(b^2n^2+4)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]/x^3,x]
```

```
[Out] -((b*n*Cos[a + b*Log[c*x^n]])/((4 + b^2*n^2)*x^2)) - (2*Sin[a + b*Log[c*x^n
]])/((4 + b^2*n^2)*x^2)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bn\cos(a+b\log(cx^n))}{(4+b^2n^2)\,x^2} - \frac{2\sin(a+b\log(cx^n))}{(4+b^2n^2)\,x^2}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.77

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = -\frac{bn\cos(a+b\log(cx^n))+2\sin(a+b\log(cx^n))}{(4+b^2n^2)\,x^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]/x^3,x]
```

```
[Out] -((b*n*Cos[a + b*Log[c*x^n]] + 2*Sin[a + b*Log[c*x^n]])/((4 + b^2*n^2)*x^2)
)
```

Maple [A] (verified)

Time = 0.62 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.79

method	result	size
parallelrisch	$\frac{-\cos(a+b\ln(cx^n))bn-2\sin(a+b\ln(cx^n))}{x^2(b^2n^2+4)}$	45

```
[In] int(sin(a+b*ln(c*x^n))/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/x^2/(b^2*n^2+4)*(-cos(a+b*ln(c*x^n))*b*n-2*sin(a+b*ln(c*x^n)))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 46, normalized size of antiderivative = 0.81

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = -\frac{bn\cos(bn\log(x)+b\log(c)+a)+2\sin(bn\log(x)+b\log(c)+a)}{(b^2n^2+4)x^2}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^3,x, algorithm="fricas")
```

```
[Out] -(b*n*cos(b*n*log(x) + b*log(c) + a) + 2*sin(b*n*log(x) + b*log(c) + a))/((
b^2*n^2 + 4)*x^2)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 2.40 (sec) , antiderivative size = 228, normalized size of antiderivative = 4.00

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = \begin{cases} -\frac{i\cos\left(a-\frac{2i\log(cx^n)}{n}\right)}{4x^2} + \frac{\log(cx^n)\sin\left(a-\frac{2i\log(cx^n)}{n}\right)}{2nx^2} - \frac{i\log(cx^n)\cos\left(a-\frac{2i\log(cx^n)}{n}\right)}{2nx^2} & \text{for } b = -\frac{2i}{n} \\ -\frac{\sin\left(a+\frac{2i\log(cx^n)}{n}\right)}{4x^2} + \frac{\log(cx^n)\sin\left(a+\frac{2i\log(cx^n)}{n}\right)}{2nx^2} + \frac{i\log(cx^n)\cos\left(a+\frac{2i\log(cx^n)}{n}\right)}{2nx^2} & \text{for } b = \frac{2i}{n} \\ -\frac{bn\cos(a+b\log(cx^n))}{b^2n^2x^2+4x^2} - \frac{2\sin(a+b\log(cx^n))}{b^2n^2x^2+4x^2} & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))/x**3,x)
```

```
[Out] Piecewise((-I*cos(a - 2*I*log(c*x**n)/n)/(4*x**2) + log(c*x**n)*sin(a - 2*I
*log(c*x**n)/n)/(2*n*x**2) - I*log(c*x**n)*cos(a - 2*I*log(c*x**n)/n)/(2*n*
x**2), Eq(b, -2*I/n)), (-sin(a + 2*I*log(c*x**n)/n)/(4*x**2) + log(c*x**n)*
sin(a + 2*I*log(c*x**n)/n)/(2*n*x**2) + I*log(c*x**n)*cos(a + 2*I*log(c*x**
n)/n)/(2*n*x**2), Eq(b, 2*I/n)), (-b*n*cos(a + b*log(c*x**n))/(b**2*n**2*x*
*2 + 4*x**2) - 2*sin(a + b*log(c*x**n))/(b**2*n**2*x**2 + 4*x**2), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 216 vs. 2(57) = 114.

Time = 0.22 (sec) , antiderivative size = 216, normalized size of antiderivative = 3.79

$$\int \frac{\sin(a+b\log(cx^n))}{x^3}\,dx = -\frac{((b\cos(2\,b\log(c))\cos(b\log(c)) + b\sin(2\,b\log(c))\sin(b\log(c)) + b\cos(b\log(c)))n + 2\,\cos(b\log(c))\,\mathrm{s}}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^3,x, algorithm="maxima")
```

```
[Out] -1/2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) +
 b*cos(b*log(c)))*n + 2*cos(b*log(c))*sin(2*b*log(c)) - 2*cos(2*b*log(c))*s
in(b*log(c)) + 2*sin(b*log(c)))*cos(b*log(x^n) + a) - ((b*cos(b*log(c))*sin
(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) + b*sin(b*log(c)))*n - 2*cos
(2*b*log(c))*cos(b*log(c)) - 2*sin(2*b*log(c))*sin(b*log(c)) - 2*cos(b*log(
c)))*sin(b*log(x^n) + a))/(((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2
 + 4*cos(b*log(c))^2 + 4*sin(b*log(c))^2)*x^2)
```

Giac [F]

$$\int \frac{\sin(a + b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(b\log(cx^n) + a)}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))/x^3,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin(a + b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(a + b\,\ln(c\,x^n))}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))/x^3,x)
[Out] int(sin(a + b*log(c*x^n))/x^3, x)
```

3.7 $\int x^2 \sin^2(a + b\log(cx^n))\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 97

$$\int x^2 \sin^2(a + b\log(cx^n))\,dx = \frac{2b^2n^2x^3}{3(9+4b^2n^2)} - \frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2} + \frac{3x^3\sin^2(a+b\log(cx^n))}{9+4b^2n^2}$$

```
[Out] 2/3*b^2*n^2*x^3/(4*b^2*n^2+9)-2*b*n*x^3*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n
))/(4*b^2*n^2+9)+3*x^3*sin(a+b*ln(c*x^n))^2/(4*b^2*n^2+9)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 97, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 30}

$$\int x^2 \sin^2(a + b\log(cx^n))\,dx = \frac{3x^3\sin^2(a+b\log(cx^n))}{4b^2n^2+9} - \frac{2bnx^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+9} + \frac{2b^2n^2x^3}{3(4b^2n^2+9)}$$

```
[In] Int[x^2*Sin[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*b^2*n^2*x^3)/(3*(9 + 4*b^2*n^2)) - (2*b*n*x^3*Cos[a + b*Log[c*x^n]]*Sin[
a + b*Log[c*x^n]])/(9 + 4*b^2*n^2) + (3*x^3*Sin[a + b*Log[c*x^n]]^2)/(9 + 4
*b^2*n^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2} \\ &\quad+\frac{3x^3\sin^2(a+b\log(cx^n))}{9+4b^2n^2}+\frac{(2b^2n^2)\int x^2\,dx}{9+4b^2n^2} \\ &= \frac{2b^2n^2x^3}{3(9+4b^2n^2)}-\frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2}+\frac{3x^3\sin^2(a+b\log(cx^n))}{9+4b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.15 (sec) , antiderivative size = 61, normalized size of antiderivative = 0.63

$$\int x^2\sin^2(a+b\log(cx^n))\,dx = \frac{x^3(9+4b^2n^2-9\cos(2(a+b\log(cx^n)))-6bn\sin(2(a+b\log(cx^n))))}{6(9+4b^2n^2)}$$

```
[In] Integrate[x^2*Sin[a + b*Log[c*x^n]]^2,x]
[Out] (x^3*(9 + 4*b^2*n^2 - 9*Cos[2*(a + b*Log[c*x^n])] - 6*b*n*Sin[2*(a + b*Log[
c*x^n])]))/(6*(9 + 4*b^2*n^2))
```

Maple [F]

$$\int x^2 \sin\left(a + b\ln\left(c\,x^n\right)\right)^2 dx$$

```
[In] int(x^2*sin(a+b*ln(c*x^n))^2,x)
```

```
[Out] int(x^2*sin(a+b*ln(c*x^n))^2,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 80, normalized size of antiderivative = 0.82

$$\int x^2 \sin^2\left(a + b\log\left(cx^n\right)\right)\, dx =$$

$$-\frac{6\,bnx^3\cos\left(bn\log\left(x\right) + b\log\left(c\right) + a\right)\sin\left(bn\log\left(x\right) + b\log\left(c\right) + a\right) + 9\,x^3\cos\left(bn\log\left(x\right) + b\log\left(c\right) + a\right)}{3\left(4\,b^2n^2 + 9\right)}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^2,x, algorithm="fricas")
```

```
[Out] -1/3*(6*b*n*x^3*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) +
a) + 9*x^3*cos(b*n*log(x) + b*log(c) + a)^2 - (2*b^2*n^2 + 9)*x^3)/(4*b^2*n
^2 + 9)
```

Sympy [F]

$$\int x^2 \sin^2\left(a + b\log\left(cx^n\right)\right)\, dx$$

$$= \begin{cases} \int x^2 \sin^2\left(a - \frac{3i\log\left(cx^n\right)}{2n}\right) dx \\ \int x^2 \sin^2\left(a + \frac{3i\log\left(cx^n\right)}{2n}\right) dx \\ \frac{2b^2n^2x^3\sin^2\left(a+b\log\left(cx^n\right)\right)}{12b^2n^2+27} + \frac{2b^2n^2x^3\cos^2\left(a+b\log\left(cx^n\right)\right)}{12b^2n^2+27} - \frac{6bnx^3\sin\left(a+b\log\left(cx^n\right)\right)\cos\left(a+b\log\left(cx^n\right)\right)}{12b^2n^2+27} + \frac{9x^3\sin^2\left(a+b\log\left(cx^n\right)\right)}{12b^2n^2+27} \end{cases}$$

```
[In] integrate(x**2*sin(a+b*ln(c*x**n))**2,x)
```

```
[Out] Piecewise((Integral(x**2*sin(a - 3*I*log(c*x**n)/(2*n))**2, x), Eq(b, -3*I/
(2*n))), (Integral(x**2*sin(a + 3*I*log(c*x**n)/(2*n))**2, x), Eq(b, 3*I/(2
*n))), (2*b**2*n**2*x**3*sin(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27) + 2*
b**2*n**2*x**3*cos(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27) - 6*b*n*x**3*s
in(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(12*b**2*n**2 + 27) + 9*x**3*s
in(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 301 vs. 2(95) = 190.

Time = 0.21 (sec) , antiderivative size = 301, normalized size of antiderivative = 3.10

$$\int x^2 \sin^2\left(a + b\log\left(cx^n\right)\right) dx =$$
$$-\frac{3\,(2\,(b\cos\left(2\,b\log\left(c\right)\right)\sin\left(4\,b\log\left(c\right)\right) - b\cos\left(4\,b\log\left(c\right)\right)\sin\left(2\,b\log\left(c\right)\right) + b\sin\left(2\,b\log\left(c\right)\right))n + 3\,\cos\left(4\,b\,l\right.}{}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] -1/12*(3*(2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*
log(c)) + b*sin(2*b*log(c)))*n + 3*cos(4*b*log(c))*cos(2*b*log(c)) + 3*sin(
4*b*log(c))*sin(2*b*log(c)) + 3*cos(2*b*log(c)))*x^3*cos(2*b*log(x^n) + 2*a
) + 3*(2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log
(c)) + b*cos(2*b*log(c)))*n - 3*cos(2*b*log(c))*sin(4*b*log(c)) + 3*cos(4*b
*log(c))*sin(2*b*log(c)) - 3*sin(2*b*log(c)))*x^3*sin(2*b*log(x^n) + 2*a) -
 2*(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 9*cos(2*b*log(c
))^2 + 9*sin(2*b*log(c))^2)*x^3)/(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*lo
g(c))^2)*n^2 + 9*cos(2*b*log(c))^2 + 9*sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 833 vs. 2(95) = 190.

Time = 0.46 (sec) , antiderivative size = 833, normalized size of antiderivative = 8.59

$$\int x^2 \sin^2\left(a + b\log\left(cx^n\right)\right) dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/6*x^3 + 1/4*(4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b*n*x^3*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 + 4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(a)^2 + 4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 3*x^3*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(a)^2 - 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b*n*x^3*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b
*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c))) - 4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
```

```
b)*tan(a) - 4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
a) + 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2 + 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 12*x^3*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 12*
x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a) + 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(a)^2 + 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)
^2 - 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 3*x^3*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b))/(4*b^2*n^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 4*b^2*n^2*tan(a)^2 + 4*b^2*n^2 + 9*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(a)^2 + 9*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 9*tan(a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 28.00 (sec) , antiderivative size = 67, normalized size of antiderivative = 0.69

$$\int x^2 \sin^2(a + b\log(cx^n))\, dx = \frac{x^3}{6} - \frac{x^3\, \mathrm{e}^{-a\,2\mathrm{i}}\, \frac{1}{(c\,x^n)^{b\,2\mathrm{i}}}\, 1\mathrm{i}}{8\,b\,n + 12\mathrm{i}} - \frac{x^3\, \mathrm{e}^{a\,2\mathrm{i}}\, (c\,x^n)^{b\,2\mathrm{i}}}{12 + b\,n\,8\mathrm{i}}$$

```
[In] int(x^2*sin(a + b*log(c*x^n))^2,x)
```

```
[Out] x^3/6 - (x^3*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 12i) - (x^3*exp(a*2i)*(
c*x^n)^(b*2i))/(b*n*8i + 12)
```

3.8 $\int x \sin^2(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 15, antiderivative size = 98

$$\int x \sin^2(a+b\log(cx^n))\,dx=\frac{b^2n^2x^2}{4(1+b^2n^2)}-\frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)}+\frac{x^2\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)}$$

```
[Out] 1/4*b^2*n^2*x^2/(b^2*n^2+1)-1/2*b*n*x^2*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n
))/(b^2*n^2+1)+1/2*x^2*sin(a+b*ln(c*x^n))^2/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {4575, 30}

$$\int x \sin^2(a+b\log(cx^n))\,dx=\frac{x^2\sin^2(a+b\log(cx^n))}{2(b^2n^2+1)}-\frac{bnx^2\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2(b^2n^2+1)}+\frac{b^2n^2x^2}{4(b^2n^2+1)}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (b^2*n^2*x^2)/(4*(1 + b^2*n^2)) - (b*n*x^2*Cos[a + b*Log[c*x^n]]*Sin[a + b*
Log[c*x^n]])/(2*(1 + b^2*n^2)) + (x^2*Sin[a + b*Log[c*x^n]]^2)/(2*(1 + b^2*
n^2))
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= -\frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)} \\
&\quad + \frac{x^2\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)} + \frac{(b^2n^2)\int x\,dx}{2(1+b^2n^2)} \\
&= \frac{b^2n^2x^2}{4(1+b^2n^2)} - \frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)} + \frac{x^2\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.58

$$\int x\sin^2(a+b\log(cx^n))\,dx = \frac{x^2(1+b^2n^2-\cos(2(a+b\log(cx^n)))-bn\sin(2(a+b\log(cx^n))))}{4+4b^2n^2}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (x^2*(1 + b^2*n^2 - Cos[2*(a + b*Log[c*x^n])] - b*n*Sin[2*(a + b*Log[c*x^n]
)]))/(4 + 4*b^2*n^2)
```

Maple [F]

$$\int x\sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{2}dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^2,x)
[Out] int(x*sin(a+b*ln(c*x^n))^2,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 78, normalized size of antiderivative = 0.80

$$\int x\sin^2\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2\,bnx^2\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+2\,x^2\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^2}{4\,\left(b^2n^2+1\right)}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] -1/4*(2*b*n*x^2*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) +
a) + 2*x^2*cos(b*n*log(x) + b*log(c) + a)^2 - (b^2*n^2 + 2)*x^2)/(b^2*n^2 +
 1)
```

Sympy [F]

$$\int x\sin^2\left(a+b\log\left(cx^n\right)\right)\,dx = \begin{cases} \int x\sin^2\left(a-\frac{i\log\left(cx^n\right)}{n}\right)dx & \text{fo} \\ \int x\sin^2\left(a+\frac{i\log\left(cx^n\right)}{n}\right)dx & \text{fo} \\ \frac{b^2n^2x^2\sin^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2+4}+\frac{b^2n^2x^2\cos^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2+4}-\frac{2bnx^2\sin\left(a+b\log\left(cx^n\right)\right)\cos\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2+4}+\frac{2x^2\sin^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2+4} & \text{ot} \end{cases}$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**2,x)
[Out] Piecewise((Integral(x*sin(a - I*log(c*x**n)/n)**2, x), Eq(b, -I/n)), (Integ
ral(x*sin(a + I*log(c*x**n)/n)**2, x), Eq(b, I/n)), (b**2*n**2*x**2*sin(a +
 b*log(c*x**n))**2/(4*b**2*n**2 + 4) + b**2*n**2*x**2*cos(a + b*log(c*x**n)
)**2/(4*b**2*n**2 + 4) - 2*b*n*x**2*sin(a + b*log(c*x**n))*cos(a + b*log(c*
x**n))/(4*b**2*n**2 + 4) + 2*x**2*sin(a + b*log(c*x**n))**2/(4*b**2*n**2 +
4), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 282 vs. 2(92) = 184.

Time = 0.22 (sec) , antiderivative size = 282, normalized size of antiderivative = 2.88

$$\int x \sin^2(a + b\log(cx^n)) \, dx = -\frac{((b\cos(2b\log(c))\sin(4b\log(c)) - b\cos(4b\log(c))\sin(2b\log(c)) + b\sin(2b\log(c)))n + \cos(4b\log(}{}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] -1/8*(((b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c
)) + b*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c
))*sin(2*b*log(c)) + cos(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) + ((b*cos
(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)) + b*cos(2*
b*log(c)))*n - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*lo
g(c)) - sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*a) - 2*((b^2*cos(2*b*log(
c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2 + sin(2*b*log(c))^2)
*x^2)/((b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c)
)^2 + sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 820 vs. 2(92) = 184.

Time = 0.43 (sec) , antiderivative size = 820, normalized size of antiderivative = 8.37

$$\int x \sin^2(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/4*x^2 + 1/8*(2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 2*b*n*x^2*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 + 2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(a)^2 + 2*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - x^2*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(a)^2 - x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 2*b*n*x^2*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 2*b*n*x
^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c))) - 2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
```

```
an(a) - 2*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) +
 x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2 + x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 4*x^2*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(a) + x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2
+ x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - x^2*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - x^2*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b))/(b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 + b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + b^2*n^2*tan(a)^2 +
 b^2*n^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2 + tan(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.45 (sec) , antiderivative size = 67, normalized size of antiderivative = 0.68

$$\int x\sin^2\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^2}{4}-\frac{x^2\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+8\mathrm{i}}-\frac{x^2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{8+b\,n\,8\mathrm{i}}$$

```
[In] int(x*sin(a + b*log(c*x^n))^2,x)
```

```
[Out] x^2/4 - (x^2*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 8i) - (x^2*exp(a*2i)*(c
*x^n)^(b*2i))/(b*n*8i + 8)
```

3.9 $\int \sin^2(a + b\log(cx^n))\,dx$

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Optimal result

Integrand size = 13, antiderivative size = 88

$$\int \sin^2(a + b\log(cx^n))\,dx = \frac{2b^2n^2x}{1 + 4b^2n^2} - \frac{2bnx\cos(a + b\log(cx^n))\sin(a + b\log(cx^n))}{1 + 4b^2n^2} + \frac{x\sin^2(a + b\log(cx^n))}{1 + 4b^2n^2}$$

```
[Out] 2*b^2*n^2*x/(4*b^2*n^2+1)-2*b*n*x*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(4*
b^2*n^2+1)+x*sin(a+b*ln(c*x^n))^2/(4*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.154$, Rules used = {4565, 8}

$$\int \sin^2(a + b\log(cx^n))\,dx = \frac{x\sin^2(a + b\log(cx^n))}{4b^2n^2 + 1} - \frac{2bnx\sin(a + b\log(cx^n))\cos(a + b\log(cx^n))}{4b^2n^2 + 1} + \frac{2b^2n^2x}{4b^2n^2 + 1}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*b^2*n^2*x)/(1 + 4*b^2*n^2) - (2*b*n*x*Cos[a + b*Log[c*x^n]]*Sin[a + b*Lo
g[c*x^n]])/(1 + 4*b^2*n^2) + (x*Sin[a + b*Log[c*x^n]]^2)/(1 + 4*b^2*n^2)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 4565

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Sin[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Sin[d*(a + b*Log[c*x^n])]^(p -
2), x], x] - Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log[c*x
^n])]^(p - 1)/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{2bnx\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+4b^2n^2} \\ &\quad+\frac{x\sin^2(a+b\log(cx^n))}{1+4b^2n^2}+\frac{(2b^2n^2)\int 1\,dx}{1+4b^2n^2} \\ &= \frac{2b^2n^2x}{1+4b^2n^2}-\frac{2bnx\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+4b^2n^2}+\frac{x\sin^2(a+b\log(cx^n))}{1+4b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 56, normalized size of antiderivative = 0.64

$$\begin{aligned}&\int \sin^2(a+b\log(cx^n))\ dx \\ &= \frac{x(1+4b^2n^2-\cos(2(a+b\log(cx^n)))-2bn\sin(2(a+b\log(cx^n))))}{2+8b^2n^2}\end{aligned}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^2,x]
[Out] (x*(1 + 4*b^2*n^2 - Cos[2*(a + b*Log[c*x^n])] - 2*b*n*Sin[2*(a + b*Log[c*x^
n])]))/(2 + 8*b^2*n^2)
```

Maple [A] (verified)

Time = 1.14 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.67

method	result	size
parallelrisch	$\frac{x\left(4b^2n^2-2bn\sin(2b\ln(c\,x^n)+2a)-\cos(2b\ln(c\,x^n)+2a)+1\right)}{8b^2n^2+2}$	59
default	$\frac{x}{2}-\frac{\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(2b\ln(c\,x^n)+2a)}{2n^2\left(\frac{1}{n^2}+4b^2\right)}-\frac{b\,\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin(2b\ln(c\,x^n)+2a)}{n\left(\frac{1}{n^2}+4b^2\right)}$	104

```
[In] int(sin(a+b*ln(c*x^n))^2,x,method=_RETURNVERBOSE)
```

```
[Out] x*(4*b^2*n^2-2*b*n*sin(2*b*ln(c*x^n)+2*a)-cos(2*b*ln(c*x^n)+2*a)+1)/(8*b^2*
n^2+2)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 73, normalized size of antiderivative = 0.83

$$\int \sin^2(a+b\log(cx^n))\,dx = -\frac{2\,bnx\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+x\cos(bn\log(x)+b\log(c)+a)^2 -}{4\,b^2n^2+1}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2,x, algorithm="fricas")
```

```
[Out] -(2*b*n*x*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) + a) + x
*cos(b*n*log(x) + b*log(c) + a)^2 - (2*b^2*n^2 + 1)*x)/(4*b^2*n^2 + 1)
```

Sympy [F]

$$\int \sin^2(a+b\log(cx^n))\,dx$$
$$= \begin{cases} \int \sin^2\left(a-\frac{i\log(cx^n)}{2n}\right)dx & \text{for} \\ \int \sin^2\left(a+\frac{i\log(cx^n)}{2n}\right)dx & \text{for} \\ \frac{2b^2n^2x\sin^2(a+b\log(cx^n))}{4b^2n^2+1}+\frac{2b^2n^2x\cos^2(a+b\log(cx^n))}{4b^2n^2+1}-\frac{2bnx\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+1}+\frac{x\sin^2(a+b\log(cx^n))}{4b^2n^2+1} & \text{oth} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**2,x)
```

```
[Out] Piecewise((Integral(sin(a - I*log(c*x**n)/(2*n))**2, x), Eq(b, -I/(2*n))),
(Integral(sin(a + I*log(c*x**n)/(2*n))**2, x), Eq(b, I/(2*n))), (2*b**2*n**
2*x*sin(a + b*log(c*x**n))**2/(4*b**2*n**2 + 1) + 2*b**2*n**2*x*cos(a + b*l
og(c*x**n))**2/(4*b**2*n**2 + 1) - 2*b*n*x*sin(a + b*log(c*x**n))*cos(a + b
*log(c*x**n))/(4*b**2*n**2 + 1) + x*sin(a + b*log(c*x**n))**2/(4*b**2*n**2
+ 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 280 vs. $2(88) = 176$.

Time = 0.23 (sec) , antiderivative size = 280, normalized size of antiderivative = 3.18

$$\int \sin^2(a+b\log(cx^n))\,dx = -\frac{(2\,(b\cos(2\,b\log(c))\sin(4\,b\log(c)) - b\cos(4\,b\log(c))\sin(2\,b\log(c)) + b\sin(2\,b\log(c)))n + \cos(4\,b\log(\cdots}{\cdots}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] -1/4*((2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log
(c)) + b*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log
(c))*sin(2*b*log(c)) + cos(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) + (2*(b*c
os(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)) + b*cos(
2*b*log(c)))*n - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*
log(c)) - sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - 2*(4*(b^2*cos(2*b*lo
g(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2 + sin(2*b*log(c))^
2)*x)/(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(
c))^2 + sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 786 vs. $2(88) = 176$.

Time = 0.40 (sec) , antiderivative size = 786, normalized size of antiderivative = 8.93

$$\int \sin^2(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/2*x + 1/4*(4*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b
*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a)^2 + 4*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - x*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a
)^2 - x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(a)^2 - 4*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b*n*x*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*
b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 4*b*n*x*e^(-
```

```
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(a) + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + x*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + x*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(a)^2 - x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b) - x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b))/(4*b^2*n^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2 + 4*b^2*n^2*tan(a)^2 + 4*b^2*n^2 + tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan
(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 29.09 (sec) , antiderivative size = 56, normalized size of antiderivative = 0.64

$$\int \sin^2(a+b\log(cx^n))\,dx = \frac{x\left(2\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^2+4\,b^2\,n^2-2\,b\,n\,\sin\left(2\,a+2\,b\,\ln\left(c\,x^n\right)\right)\right)}{8\,b^2\,n^2+2}$$

```
[In] int(sin(a + b*log(c*x^n))^2,x)
```

```
[Out] (x*(2*sin(a + b*log(c*x^n))^2 + 4*b^2*n^2 - 2*b*n*sin(2*a + 2*b*log(c*x^n))
))/(8*b^2*n^2 + 2)
```

3.10 $\int \frac{\sin^2(a+b\log(cx^n))}{x} dx$

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Rubi [A] (verified) 156
Mathematica [A] (verified) 157
Maple [A] (verified) 157
Fricas [A] (verification not implemented) 158
Sympy [A] (verification not implemented) 158
Maxima [A] (verification not implemented) 158
Giac [F] 159
Mupad [B] (verification not implemented) 159

Optimal result

Integrand size = 17, antiderivative size = 39

$$\int \frac{\sin^2(a+b\log(cx^n))}{x} dx = \frac{\log(x)}{2} - \frac{\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2bn}$$

```
[Out] 1/2*ln(x)-1/2*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used = {2715, 8}

$$\int \frac{\sin^2(a+b\log(cx^n))}{x} dx = \frac{\log(x)}{2} - \frac{\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2bn}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^2/x,x]
```

```
[Out] Log[x]/2 - (Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(2*b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \sin^2(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= -\frac{\cos\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{2bn}+\frac{\text{Subst}\left(\int 1\,dx, x, \log\left(cx^n\right)\right)}{2n}\\ &= \frac{\log(x)}{2}-\frac{\cos\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{2bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.92

$$\int \frac{\sin^2\left(a+b\log\left(cx^n\right)\right)}{x}\,dx=-\frac{-2\left(a+b\log\left(cx^n\right)\right)+\sin\left(2\left(a+b\log\left(cx^n\right)\right)\right)}{4bn}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^2/x,x]
[Out] -1/4*(-2*(a + b*Log[c*x^n]) + Sin[2*(a + b*Log[c*x^n])])/(b*n)
```

Maple [A] (verified)

Time = 0.84 (sec) , antiderivative size = 32, normalized size of antiderivative = 0.82

method	result	size
parallelrisch	$\frac{2\ln(x)bn-\sin(2b\ln(c\,x^n)+2a)}{4bn}$	32
derivativedivides	$\frac{-\frac{\cos(a+b\ln(c\,x^n))\sin(a+b\ln(c\,x^n))}{2}+\frac{b\ln(c\,x^n)}{2}+\frac{a}{2}}{nb}$	45
default	$\frac{-\frac{\cos(a+b\ln(c\,x^n))\sin(a+b\ln(c\,x^n))}{2}+\frac{b\ln(c\,x^n)}{2}+\frac{a}{2}}{nb}$	45

```
[In] int(sin(a+b*ln(c*x^n))^2/x,x,method=_RETURNVERBOSE)
[Out] 1/4*(2*ln(x)*b*n-sin(2*b*ln(c*x^n)+2*a))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 40, normalized size of antiderivative = 1.03

$$\int \frac{\sin^2(a+b\log(cx^n))}{x}\,dx = \frac{bn\log(x) - \cos(bn\log(x) + b\log(c) + a)\sin(bn\log(x) + b\log(c) + a)}{2\,bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x,x, algorithm="fricas")
```

```
[Out] 1/2*(b*n*log(x) - cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c)
+ a))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 1.45 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.31

$$\int \frac{\sin^2(a+b\log(cx^n))}{x}\,dx = -\frac{\begin{cases}\log(x)\cos(2a) & \text{for } b=0 \wedge (b=0 \vee n=0)\\ \log(x)\cos(2a+2b\log(c)) & \text{for } n=0\\ \frac{\sin(2a+2b\log(cx^n))}{2bn} & \text{otherwise}\end{cases}}{2} + \frac{\log(x)}{2}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**2/x,x)
```

```
[Out] -Piecewise((log(x)*cos(2*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos
(2*a + 2*b*log(c)), Eq(n, 0)), (sin(2*a + 2*b*log(c*x**n))/(2*b*n), True))/
2 + log(x)/2
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.41

$$\int \frac{\sin^2(a+b\log(cx^n))}{x}\,dx = \frac{2\,bn\log(x) - \cos(2\,b\log(x^n) + 2\,a)\sin(2\,b\log(c)) - \cos(2\,b\log(c))\sin(2\,b\log(x^n) + 2\,a)}{4\,bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x,x, algorithm="maxima")
```

```
[Out] 1/4*(2*b*n*log(x) - cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) - cos(2*b*log(c
))*sin(2*b*log(x^n) + 2*a))/(b*n)
```

Giac [F]

$$\int \frac{\sin^2(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^2}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^2/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.71 (sec) , antiderivative size = 32, normalized size of antiderivative = 0.82

$$\int \frac{\sin^2(a+b\log(cx^n))}{x}\,dx = \frac{\ln(x^n)}{2\,n} - \frac{\sin(2\,a+2\,b\,\ln(c\,x^n))}{4\,b\,n}$$

```
[In] int(sin(a + b*log(c*x^n))^2/x,x)
[Out] log(x^n)/(2*n) - sin(2*a + 2*b*log(c*x^n))/(4*b*n)
```

3.11 $\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx$

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Mathematica [A] (verified) 161
Maple [A] (verified) 162
Fricas [A] (verification not implemented) 162
Sympy [C] (verification not implemented) 162
Maxima [B] (verification not implemented) 163
Giac [F] 163
Mupad [F(-1)] 164

Optimal result

Integrand size = 17, antiderivative size = 95

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{2b^2n^2}{(1+4b^2n^2)\,x} - \frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)\,x} - \frac{\sin^2(a+b\log(cx^n))}{(1+4b^2n^2)\,x}$$

```
[Out] -2*b^2*n^2/(4*b^2*n^2+1)/x-2*b*n*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(4*b
^2*n^2+1)/x-sin(a+b*ln(c*x^n))^2/(4*b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 95, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 30}

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{\sin^2(a+b\log(cx^n))}{x(4b^2n^2+1)} - \frac{2bn\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x(4b^2n^2+1)} - \frac{2b^2n^2}{x(4b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^2/x^2,x]
```

```
[Out] (-2*b^2*n^2)/((1 + 4*b^2*n^2)*x) - (2*b*n*Cos[a + b*Log[c*x^n]]*Sin[a + b*L
og[c*x^n]])/((1 + 4*b^2*n^2)*x) - Sin[a + b*Log[c*x^n]]^2/((1 + 4*b^2*n^2)*
x)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= -\frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)x} \\
&\quad -\frac{\sin^2(a+b\log(cx^n))}{(1+4b^2n^2)x}+\frac{(2b^2n^2)\int\frac{1}{x^2}\,dx}{1+4b^2n^2} \\
&= -\frac{2b^2n^2}{(1+4b^2n^2)x}-\frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)x}-\frac{\sin^2(a+b\log(cx^n))}{(1+4b^2n^2)x}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.60

$$\int\frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx = \frac{-1-4b^2n^2+\cos(2(a+b\log(cx^n)))-2bn\sin(2(a+b\log(cx^n)))}{2(x+4b^2n^2x)}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^2/x^2,x]
[Out] (-1 - 4*b^2*n^2 + Cos[2*(a + b*Log[c*x^n])] - 2*b*n*Sin[2*(a + b*Log[c*x^n]
)])/(2*(x + 4*b^2*n^2*x))
```

Maple [A] (verified)

Time = 1.30 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.62

method	result	size
parallelrisch	$\frac{-4b^{2}n^{2}-2bn\sin\left(2b\ln\left(c\,x^{n}\right)+2a\right)+\cos\left(2b\ln\left(c\,x^{n}\right)+2a\right)-1}{8b^{2}n^{2}x+2x}$	59

```
[In] int(sin(a+b*ln(c*x^n))^2/x^2,x,method=_RETURNVERBOSE)
[Out] (-4*b^2*n^2-2*b*n*sin(2*b*ln(c*x^n)+2*a)+cos(2*b*ln(c*x^n)+2*a)-1)/(8*b^2*n
^2*x+2*x)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 71, normalized size of antiderivative = 0.75

$$\int \frac{\sin^2\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{2\,b^2n^2+2\,bn\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^2+1}{(4\,b^2n^2+1)x}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^2,x, algorithm="fricas")
[Out] -(2*b^2*n^2 + 2*b*n*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c
) + a) - cos(b*n*log(x) + b*log(c) + a)^2 + 1)/((4*b^2*n^2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 5.80 (sec) , antiderivative size = 303, normalized size of antiderivative = 3.19

$$\int \frac{\sin^2\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx = \begin{cases} \frac{\cos\left(2a-\frac{i\log\left(cx^n\right)}{n}\right)}{4x}-\frac{1}{2x}-\frac{i\log\left(cx^n\right)\sin\left(2a-\frac{i\log\left(cx^n\right)}{n}\right)}{4nx}-\frac{\log\left(cx^n\right)\cos\left(2a-\frac{i\log\left(cx^n\right)}{n}\right)}{4nx} & \text{for } b= \\ \frac{i\sin\left(2a+\frac{i\log\left(cx^n\right)}{n}\right)}{4x}-\frac{1}{2x}+\frac{i\log\left(cx^n\right)\sin\left(2a+\frac{i\log\left(cx^n\right)}{n}\right)}{4nx}-\frac{\log\left(cx^n\right)\cos\left(2a+\frac{i\log\left(cx^n\right)}{n}\right)}{4nx} & \text{for } b= \\ -\frac{2b^2n^2\sin^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2x+x}-\frac{2b^2n^2\cos^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2x+x}-\frac{2bn\sin\left(a+b\log\left(cx^n\right)\right)\cos\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2x+x}-\frac{\sin^2\left(a+b\log\left(cx^n\right)\right)}{4b^2n^2x+x} & \text{otherw} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**2/x**2,x)
[Out] Piecewise((cos(2*a - I*log(c*x**n)/n)/(4*x) - 1/(2*x) - I*log(c*x**n)*sin(2
*a - I*log(c*x**n)/n)/(4*n*x) - log(c*x**n)*cos(2*a - I*log(c*x**n)/n)/(4*n
```

```
*x), Eq(b, -I/(2*n))), (I*sin(2*a + I*log(c*x**n)/n)/(4*x) - 1/(2*x) + I*lo
g(c*x**n)*sin(2*a + I*log(c*x**n)/n)/(4*n*x) - log(c*x**n)*cos(2*a + I*log(
c*x**n)/n)/(4*n*x), Eq(b, I/(2*n))), (-2*b**2*n**2*sin(a + b*log(c*x**n))**
2/(4*b**2*n**2*x + x) - 2*b**2*n**2*cos(a + b*log(c*x**n))**2/(4*b**2*n**2*
x + x) - 2*b*n*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*n**2*x
 + x) - sin(a + b*log(c*x**n))**2/(4*b**2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 283 vs. $2(95) = 190$.

Time = 0.22 (sec) , antiderivative size = 283, normalized size of antiderivative = 2.98

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{8\left(b^2\cos(2b\log(c))^2+b^2\sin(2b\log(c))^2\right)n^2+2\cos(2b\log(c))^2+(2(b\cos(2b\log(c))\sin(4b\log(c))}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^2,x, algorithm="maxima")
```

```
[Out] -1/4*(8*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 2*cos(2*b*log
(c))^2 + (2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*
log(c)) + b*sin(2*b*log(c)))*n - cos(4*b*log(c))*cos(2*b*log(c)) - sin(4*b*
log(c))*sin(2*b*log(c)) - cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*sin(
2*b*log(c))^2 + (2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*s
in(2*b*log(c)) + b*cos(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - c
os(4*b*log(c))*sin(2*b*log(c)) + sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))/
((4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2
 + sin(2*b*log(c))^2)*x)
```

Giac [F]

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(b\log(cx^n)+a)^2}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^2,x, algorithm="giac")
```

```
[Out] integrate(sin(b*log(c*x^n) + a)^2/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^2\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^2}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^2/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^2/x^2, x)
```

3.12 $\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 98

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{b^2n^2}{4(1+b^2n^2)x^2} - \frac{bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)x^2} - \frac{\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)x^2}$$

```
[Out] -1/4*b^2*n^2/(b^2*n^2+1)/x^2-1/2*b*n*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/
(b^2*n^2+1)/x^2-1/2*sin(a+b*ln(c*x^n))^2/(b^2*n^2+1)/x^2
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 30}

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{\sin^2(a+b\log(cx^n))}{2x^2(b^2n^2+1)} - \frac{bn\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2x^2(b^2n^2+1)} - \frac{b^2n^2}{4x^2(b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^2/x^3,x]
```

```
[Out] -1/4*(b^2*n^2)/((1 + b^2*n^2)*x^2) - (b*n*Cos[a + b*Log[c*x^n]]*Sin[a + b*L
og[c*x^n]])/(2*(1 + b^2*n^2)*x^2) - Sin[a + b*Log[c*x^n]]^2/(2*(1 + b^2*n^2
)*x^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)x^2} - \frac{\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)x^2} + \frac{(b^2n^2)\int\frac{1}{x^3}\,dx}{2(1+b^2n^2)}$$

$$= -\frac{b^2n^2}{4(1+b^2n^2)x^2} - \frac{bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)x^2} - \frac{\sin^2(a+b\log(cx^n))}{2(1+b^2n^2)x^2}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.59

$$\int\frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{1+b^2n^2-\cos(2(a+b\log(cx^n)))+bn\sin(2(a+b\log(cx^n)))}{4(1+b^2n^2)x^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^2/x^3,x]
[Out] -1/4*(1 + b^2*n^2 - Cos[2*(a + b*Log[c*x^n])] + b*n*Sin[2*(a + b*Log[c*x^n]
)])/((1 + b^2*n^2)*x^2)
```

Maple [A] (verified)

Time = 2.13 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.60

method	result	size
parallelrisch	$\frac{-b^2n^2-bn\sin(2b\ln(c\,x^n)+2a)+\cos(2b\ln(c\,x^n)+2a)-1}{4x^2(b^2n^2+1)}$	59

```
[In] int(sin(a+b*ln(c*x^n))^2/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/4*(-b^2*n^2-b*n*sin(2*b*ln(c*x^n)+2*a)+cos(2*b*ln(c*x^n)+2*a)-1)/x^2/(b^2
*n^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 69, normalized size of antiderivative = 0.70

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{b^2n^2+2\,bn\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)-2\,\cos(bn\log(x)+b\log(c)+}{4\,(b^2n^2+1)x^2}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^3,x, algorithm="fricas")
```

```
[Out] -1/4*(b^2*n^2 + 2*b*n*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log
(c) + a) - 2*cos(b*n*log(x) + b*log(c) + a)^2 + 2)/((b^2*n^2 + 1)*x^2)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 2.44 (sec) , antiderivative size = 468, normalized size of antiderivative = 4.78

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = \begin{cases} -\frac{3i\sin\left(a-\frac{i\log(cx^n)}{n}\right)\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{4x^2} - \frac{\cos^2\left(a-\frac{i\log(cx^n)}{n}\right)}{2x^2} + \frac{\log(cx^n)\sin^2\left(a-\frac{i\log(cx^n)}{n}\right)}{4nx^2} - \frac{i\log(cx^n)\sin\left(a-\frac{i\log(cx^n)}{n}\right)\cos}{2nx^2} \\ -\frac{\sin^2\left(a+\frac{i\log(cx^n)}{n}\right)}{2x^2} - \frac{i\sin\left(a+\frac{i\log(cx^n)}{n}\right)\cos\left(a+\frac{i\log(cx^n)}{n}\right)}{4x^2} + \frac{\log(cx^n)\sin^2\left(a+\frac{i\log(cx^n)}{n}\right)}{4nx^2} + \frac{i\log(cx^n)\sin\left(a+\frac{i\log(cx^n)}{n}\right)\cos(}{2nx^2} \\ -\frac{b^2n^2\sin^2(a+b\log(cx^n))}{4b^2n^2x^2+4x^2} - \frac{b^2n^2\cos^2(a+b\log(cx^n))}{4b^2n^2x^2+4x^2} - \frac{2bn\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2x^2+4x^2} - \frac{2\sin^2(a+b\log(cx^n))}{4b^2n^2x^2+4x^2} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**2/x**3,x)
```

```
[Out] Piecewise((-3*I*sin(a - I*log(c*x**n)/n)*cos(a - I*log(c*x**n)/n)/(4*x**2)
- cos(a - I*log(c*x**n)/n)**2/(2*x**2) + log(c*x**n)*sin(a - I*log(c*x**n)/
n)**2/(4*n*x**2) - I*log(c*x**n)*sin(a - I*log(c*x**n)/n)*cos(a - I*log(c*x
**n)/n)/(2*n*x**2) - log(c*x**n)*cos(a - I*log(c*x**n)/n)**2/(4*n*x**2), Eq
(b, -I/n)), (-sin(a + I*log(c*x**n)/n)**2/(2*x**2) - I*sin(a + I*log(c*x**n
)/n)*cos(a + I*log(c*x**n)/n)/(4*x**2) + log(c*x**n)*sin(a + I*log(c*x**n)/
n)**2/(4*n*x**2) + I*log(c*x**n)*sin(a + I*log(c*x**n)/n)*cos(a + I*log(c*x
**n)/n)/(2*n*x**2) - log(c*x**n)*cos(a + I*log(c*x**n)/n)**2/(4*n*x**2), Eq
(b, I/n)), (-b**2*n**2*sin(a + b*log(c*x**n))**2/(4*b**2*n**2*x**2 + 4*x**2
```

```
) - b**2*n**2*cos(a + b*log(c*x**n))**2/(4*b**2*n**2*x**2 + 4*x**2) - 2*b*n
*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*n**2*x**2 + 4*x**2)
- 2*sin(a + b*log(c*x**n))**2/(4*b**2*n**2*x**2 + 4*x**2), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 280 vs. $2(92) = 184$.

Time = 0.23 (sec) , antiderivative size = 280, normalized size of antiderivative = 2.86

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{2\left(b^2\cos(2\,b\log(c))^2+b^2\sin(2\,b\log(c))^2\right)n^2+2\,\cos(2\,b\log(c))^2+((b\cos(2\,b\log(c))\sin(4\,b\log(c))-}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^3,x, algorithm="maxima")
```

```
[Out] -1/8*(2*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 2*cos(2*b*log
(c))^2 + ((b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*lo
g(c)) + b*sin(2*b*log(c)))*n - cos(4*b*log(c))*cos(2*b*log(c)) - sin(4*b*lo
g(c))*sin(2*b*log(c)) - cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*sin(2*
b*log(c))^2 + ((b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2
*b*log(c)) + b*cos(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4
*b*log(c))*sin(2*b*log(c)) + sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))/(((b
^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2 + sin
(2*b*log(c))^2)*x^2)
```

Giac [F]

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(b\log(cx^n)+a)^2}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^2/x^3,x, algorithm="giac")
```

```
[Out] integrate(sin(b*log(c*x^n) + a)^2/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^2}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^2/x^3,x)
```

```
[Out] int(sin(a + b*log(c*x^n))^2/x^3, x)
```

3.13 $\int x^2 \sin^3(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 160

$$\int x^2 \sin^3(a+b\log(cx^n))\,dx = -\frac{2b^3n^3x^3\cos(a+b\log(cx^n))}{3(9+10b^2n^2+b^4n^4)}+\frac{2b^2n^2x^3\sin(a+b\log(cx^n))}{9+10b^2n^2+b^4n^4} -\frac{bnx^3\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{3(1+b^2n^2)} +\frac{x^3\sin^3(a+b\log(cx^n))}{3(1+b^2n^2)}$$

```
[Out] -2/3*b^3*n^3*x^3*cos(a+b*ln(c*x^n))/(b^4*n^4+10*b^2*n^2+9)+2*b^2*n^2*x^3*si
n(a+b*ln(c*x^n))/(b^4*n^4+10*b^2*n^2+9)-1/3*b*n*x^3*cos(a+b*ln(c*x^n))*sin(
a+b*ln(c*x^n))^2/(b^2*n^2+1)+1/3*x^3*sin(a+b*ln(c*x^n))^3/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 160, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 4573}

$$\int x^2 \sin^3(a+b\log(cx^n))\,dx = \frac{x^3\sin^3(a+b\log(cx^n))}{3(b^2n^2+1)} -\frac{bnx^3\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{3(b^2n^2+1)} +\frac{2b^2n^2x^3\sin(a+b\log(cx^n))}{b^4n^4+10b^2n^2+9} -\frac{2b^3n^3x^3\cos(a+b\log(cx^n))}{3(b^4n^4+10b^2n^2+9)}$$

```
[In] Int[x^2*Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (-2*b^3*n^3*x^3*Cos[a + b*Log[c*x^n]])/(3*(9 + 10*b^2*n^2 + b^4*n^4)) + (2*
b^2*n^2*x^3*Sin[a + b*Log[c*x^n]])/(9 + 10*b^2*n^2 + b^4*n^4) - (b*n*x^3*Co
s[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^2)/(3*(1 + b^2*n^2)) + (x^3*Sin[a
 + b*Log[c*x^n]]^3)/(3*(1 + b^2*n^2))
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= -\frac{bnx^3\cos\left(a+b\log\left(cx^n\right)\right)\sin^2\left(a+b\log\left(cx^n\right)\right)}{3\left(1+b^2n^2\right)} \\
&\quad +\frac{x^3\sin^3\left(a+b\log\left(cx^n\right)\right)}{3\left(1+b^2n^2\right)}+\frac{\left(2b^2n^2\right)\int x^2\sin\left(a+b\log\left(cx^n\right)\right)\,dx}{3\left(1+b^2n^2\right)} \\
&= -\frac{2b^3n^3x^3\cos\left(a+b\log\left(cx^n\right)\right)}{3\left(9+10b^2n^2+b^4n^4\right)}+\frac{2b^2n^2x^3\sin\left(a+b\log\left(cx^n\right)\right)}{9+10b^2n^2+b^4n^4} \\
&\quad -\frac{bnx^3\cos\left(a+b\log\left(cx^n\right)\right)\sin^2\left(a+b\log\left(cx^n\right)\right)}{3\left(1+b^2n^2\right)}+\frac{x^3\sin^3\left(a+b\log\left(cx^n\right)\right)}{3\left(1+b^2n^2\right)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.41 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.76

$$\begin{aligned}
&\int x^2\sin^3\left(a+b\log\left(cx^n\right)\right)\,dx \\
&= \frac{x^3(-9bn(1+b^2n^2)\cos\left(a+b\log\left(cx^n\right)\right)+bn(9+b^2n^2)\cos\left(3(a+b\log\left(cx^n\right))\right)-2(-9-13b^2n^2+(9+b^2}{12\left(9+10b^2n^2+b^4n^4\right)}
\end{aligned}$$

```
[In] Integrate[x^2*Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^3*(-9*b*n*(1 + b^2*n^2)*Cos[a + b*Log[c*x^n]] + b*n*(9 + b^2*n^2)*Cos[3*
(a + b*Log[c*x^n])] - 2*(-9 - 13*b^2*n^2 + (9 + b^2*n^2)*Cos[2*(a + b*Log[c
*x^n])])*Sin[a + b*Log[c*x^n]]))/(12*(9 + 10*b^2*n^2 + b^4*n^4))
```

Maple [F]

$$\int x^2 \sin\left(a + b\ln\left(c\,x^n\right)\right)^3 dx$$

```
[In] int(x^2*sin(a+b*ln(c*x^n))^3,x)
```

```
[Out] int(x^2*sin(a+b*ln(c*x^n))^3,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 138, normalized size of antiderivative = 0.86

$$\int x^2 \sin^3\left(a + b\log\left(cx^n\right)\right)\, dx = \frac{(b^3n^3 + 9\,bn)x^3 \cos\left(bn\log\left(x\right) + b\log\left(c\right) + a\right)^3 - 3\,(b^3n^3 + 3\,bn)x^3 \cos\left(bn\log\left(x\right) + b\log\left(c\right) + a\right) - \left((b^2n^2\right.}{3\,(b^4n^4 + 10\,b^2n^2 + 9)}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] 1/3*((b^3*n^3 + 9*b*n)*x^3*cos(b*n*log(x) + b*log(c) + a)^3 - 3*(b^3*n^3 +
3*b*n)*x^3*cos(b*n*log(x) + b*log(c) + a) - ((b^2*n^2 + 9)*x^3*cos(b*n*log(
x) + b*log(c) + a)^2 - (7*b^2*n^2 + 9)*x^3)*sin(b*n*log(x) + b*log(c) + a))
/(b^4*n^4 + 10*b^2*n^2 + 9)
```

Sympy [F(-1)]

Timed out.

$$\int x^2 \sin^3\left(a + b\log\left(cx^n\right)\right)\, dx = \text{Timed out}$$

```
[In] integrate(x**2*sin(a+b*ln(c*x**n))**3,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1008 vs. 2(154) = 308.

Time = 0.25 (sec) , antiderivative size = 1008, normalized size of antiderivative = 6.30

$$\int x^2 \sin^3\left(a + b\log\left(cx^n\right)\right) dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/24*(((b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*l
og(c)) + b^3*cos(3*b*log(c)))*n^3 - (b^2*cos(3*b*log(c))*sin(6*b*log(c)) -
b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 9*(b*cos(6
*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b*
log(c)))*n - 9*cos(3*b*log(c))*sin(6*b*log(c)) + 9*cos(6*b*log(c))*sin(3*b*
log(c)) - 9*sin(3*b*log(c)))*x^3*cos(3*b*log(x^n) + 3*a) - 9*((b^3*cos(4*b*
log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b
*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 - 3*(b^
2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c)) + b
^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c)))*n
^2 + (b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c))
 + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n
 - 3*cos(3*b*log(c))*sin(4*b*log(c)) + 3*cos(4*b*log(c))*sin(3*b*log(c)) -
3*cos(2*b*log(c))*sin(3*b*log(c)) + 3*cos(3*b*log(c))*sin(2*b*log(c)))*x^3*
cos(b*log(x^n) + a) - ((b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*l
og(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c)))*n^3 + (b^2*cos(6*b*log(c))*co
s(3*b*log(c)) + b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*
n^2 + 9*(b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(
c)) + b*sin(3*b*log(c)))*n + 9*cos(6*b*log(c))*cos(3*b*log(c)) + 9*sin(6*b*
log(c))*sin(3*b*log(c)) + 9*cos(3*b*log(c)))*x^3*sin(3*b*log(x^n) + 3*a) +
9*((b^3*cos(3*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c
)) + b^3*cos(2*b*log(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(
c)))*n^3 + 3*(b^2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos
(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*si
n(2*b*log(c)))*n^2 + (b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))
*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*si
n(2*b*log(c)))*n + 3*cos(4*b*log(c))*cos(3*b*log(c)) + 3*cos(3*b*log(c))*co
s(2*b*log(c)) + 3*sin(4*b*log(c))*sin(3*b*log(c)) + 3*sin(3*b*log(c))*sin(2
*b*log(c)))*x^3*sin(b*log(x^n) + a))/((b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*
log(c))^2)*n^4 + 10*(b^2*cos(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + 9
*cos(3*b*log(c))^2 + 9*sin(3*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 18085 vs. 2(154) = 308.

Time = 1.40 (sec) , antiderivative size = 18085, normalized size of antiderivative = 113.03

$$\int x^2 \sin^3(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] 1/24*(b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)
^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^3*n^3*x^3*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^3*n^3*x^3*e^(-1/2*pi
*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 36*b^3*n^3*x^3*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
3/2*a)^2*tan(1/2*a) + 36*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - b^3*n
^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b^3*n^
3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
```

```
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 4*b^3*n^3
*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/
2*a)^2 + b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*ta
n(1/2*a)^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^
2*tan(1/2*a)^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a
)^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b
*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*
a)^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)
 - 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 2*b^2*n^2*x^3*e^(3/2*p
i*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 -
54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x^3*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3
/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b
^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn
(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
```

```
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^3*n
^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b^3*n^3*
x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a) - 4*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + b^3*n^3*x^3*e^(3/2
*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(3/2*a)^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(3/2*a)^2 - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^3*n
^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^3*n^3*x^3*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 36*b^3*n^3*x^3*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/
2*a) + 36*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 36*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*a)^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*a)^2 - b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c
) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
```

)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b^3*n^3*x
^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b^3*n^3*x^3*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/2*a)^2 - 4*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(3/2*a)*tan(1/2*a)^2 - 4*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(3/2*a)*tan(1/2*a)^2 - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^3*n^3*x^3
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)
^2*tan(1/2*a)^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)
^2 + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a)^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b*n*
x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) +
2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a) + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54
*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 2*b^2
*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2 - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^2*n
^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan

(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/2*a) + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 -
54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 2*b
^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - b^3*n^3*x^3*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2 - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 9
*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^3*n^3*x^3*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2 + b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*

pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 4*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 36*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 36*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*

log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2
- 36*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 36*b*n*x^3*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*t
an(1/2*a)^2 + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*ta
n(1/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(
1/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c))) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b^2*n^2*x^3*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2 - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2 + 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
+ 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(3/2*a) + 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a
) - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 2*b^2*n^
2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 2*b^2*n^2*x^3*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))*tan(3/2*a)^2 + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1

/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan (3/2*a)^2 + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn (c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2* pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^2*n^ 2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1 /2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^2*n^2*x^3*e^(-1 /2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log (abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^2*n^2*x^3*e^(1/2*pi*b*n*s gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p i*b)*tan(3/2*a)^2*tan(1/2*a) - 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1 /2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54* x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/ 2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l og(abs(c)))*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) *tan(1/2*a)^2 - 54*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b *sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) ^2 - 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b^2 *n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta n(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 18*x^3*e^(3/2*pi*b*n* sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/ 2*a)*tan(1/2*a)^2 + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n *log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 54*x^3*e^(1/2 *pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))* tan(3/2*a)^2*tan(1/2*a)^2 - 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2 *pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan (1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 18*x^ 3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b *n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs (c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b *n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi *b) - 9*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1 /2*pi*b) - 9*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(

c) + 1/2*pi*b) + b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 36*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 36*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 36*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 36*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/

2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b*n*x^3*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/2*a)^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2
- 36*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 36
*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 9*b*n
*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*a)^2*tan(1/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*
b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2
- 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*a)^2*tan(1/2*a)^2 - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
)) - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 54*b^2*n^2*x^3*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c))) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c))) - 2*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(3/2*a) - 2*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) + 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 18*x^
3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a) + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*x^3*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a
)^2 + 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)^2 + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 54*b^2*n^2*x
^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
a) + 54*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/2*a) - 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*
sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b

*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*x^3*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*
a) + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 5
4*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*x^3
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*x^3*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*x^3*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
1/2*a)^2 - 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 18*x^3*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/2*a)^2 + 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
*tan(1/2*a)^2 + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
 + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(
1/2*a)^2 - 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)
^2 - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 +
18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 18*x^3
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*x^3*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*x^3*e^(-1/2*pi
*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 9*b*n*x^3*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 9
*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2 + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b*n
*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/

2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 36*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 36*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 36*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 9*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 9*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 9*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta

n(1/2*a) + 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 54*x^3*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*x^3*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a) + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) + 54*x^3*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) -
 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 18*x^3*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))*tan(1/2*a)^2 - 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2
- 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*a)*tan(1/2*a)^2 - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*
b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 9*b*n*x^3*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 9*b*n*x^3*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 9*b*n*x^3*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + 9*b*n*x^3*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - 18*x^3*e^(3/2*pi*b*n*s
gn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c))) - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 54*x^3*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c))) + 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
- 18*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*a) - 18*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*a) + 54*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(1/2*a) + 54*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a))/(b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*
a)^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^4*n^4*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b
^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^4*n^
4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^4*n^4*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^4*n^4*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*a)^2*

```
tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^
4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + b^4*n^4*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^4*n^4*tan(3/2*a)^2 + 10*b^2*n^2*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2 + b^4*n^4*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4 + 10*b^2*n^2*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3
/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2
*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a
)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^
2 + 10*b^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^
2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
+ 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*ta
n(3/2*a)^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*a)^2 +
9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2 + 9*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 +
 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(3/2*a)^2*tan(1/2*a)^2 + 9*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2 + 9*tan(3/2*a)^2 + 9*tan(1/2*a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 28.06 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.76

$$\int x^2 \sin^3(a + b\log(cx^n))\,dx = -\frac{x^3\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,1\mathrm{i}}}\,3\mathrm{i}}{-24 + b\,n\,8\mathrm{i}} - \frac{3\,x^3\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{8\,b\,n - 24\mathrm{i}} + \frac{x^3\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,3\mathrm{i}}}\,1\mathrm{i}}{-24 + b\,n\,24\mathrm{i}} + \frac{x^3\,\mathrm{e}^{a\,3\mathrm{i}}\,(c\,x^n)^{b\,3\mathrm{i}}}{24\,b\,n - 24\mathrm{i}}$$

```
[In] int(x^2*sin(a + b*log(c*x^n))^3,x)
```

```
[Out] (x^3*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(b*n*24i - 24) - (3*x^3*exp(a*1i)*(c*x^n
)^(b*1i))/(8*b*n - 24i) - (x^3*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(b*n*8i - 24)
+ (x^3*exp(a*3i)*(c*x^n)^(b*3i))/(24*b*n - 24i)
```

3.14 $\int x \sin^3(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 15, antiderivative size = 158

$$\int x\sin^3(a+b\log(cx^n))\,dx = -\frac{6b^3n^3x^2\cos(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4}+\frac{12b^2n^2x^2\sin(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4} - \frac{3bnx^2\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{4+9b^2n^2} + \frac{2x^2\sin^3(a+b\log(cx^n))}{4+9b^2n^2}$$

```
[Out] -6*b^3*n^3*x^2*cos(a+b*ln(c*x^n))/(9*b^4*n^4+40*b^2*n^2+16)+12*b^2*n^2*x^2*
sin(a+b*ln(c*x^n))/(9*b^4*n^4+40*b^2*n^2+16)-3*b*n*x^2*cos(a+b*ln(c*x^n))*s
in(a+b*ln(c*x^n))^2/(9*b^2*n^2+4)+2*x^2*sin(a+b*ln(c*x^n))^3/(9*b^2*n^2+4)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {4575, 4573}

$$\int x\sin^3(a+b\log(cx^n))\,dx = \frac{2x^2\sin^3(a+b\log(cx^n))}{9b^2n^2+4} - \frac{3bnx^2\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^2n^2+4} + \frac{12b^2n^2x^2\sin(a+b\log(cx^n))}{9b^4n^4+40b^2n^2+16} - \frac{6b^3n^3x^2\cos(a+b\log(cx^n))}{9b^4n^4+40b^2n^2+16}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (-6*b^3*n^3*x^2*Cos[a + b*Log[c*x^n]])/(16 + 40*b^2*n^2 + 9*b^4*n^4) + (12*
b^2*n^2*x^2*Sin[a + b*Log[c*x^n]])/(16 + 40*b^2*n^2 + 9*b^4*n^4) - (3*b*n*x
^2*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^2)/(4 + 9*b^2*n^2) + (2*x^2*
Sin[a + b*Log[c*x^n]]^3)/(4 + 9*b^2*n^2)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{3bnx^2\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{4+9b^2n^2} \\ &\quad+\frac{2x^2\sin^3(a+b\log(cx^n))}{4+9b^2n^2}+\frac{(6b^2n^2)\int x\sin(a+b\log(cx^n))\,dx}{4+9b^2n^2} \\ &= -\frac{6b^3n^3x^2\cos(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4}+\frac{12b^2n^2x^2\sin(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4} \\ &\quad-\frac{3bnx^2\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{4+9b^2n^2}+\frac{2x^2\sin^3(a+b\log(cx^n))}{4+9b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.39 (sec) , antiderivative size = 125, normalized size of antiderivative = 0.79

$$\int x\sin^3(a+b\log(cx^n))\,dx$$
$$=\frac{x^2(-3bn(4+9b^2n^2)\cos(a+b\log(cx^n))+3bn(4+b^2n^2)\cos(3(a+b\log(cx^n)))-4(-4-13b^2n^2+(4+b}{4(16+40b^2n^2+9b^4n^4)}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^2*(-3*b*n*(4 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + 3*b*n*(4 + b^2*n^2)*Co
s[3*(a + b*Log[c*x^n])] - 4*(-4 - 13*b^2*n^2 + (4 + b^2*n^2)*Cos[2*(a + b*L
og[c*x^n])])*Sin[a + b*Log[c*x^n]]))/(4*(16 + 40*b^2*n^2 + 9*b^4*n^4))
```

Maple [F]

$$\int x\sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^3,x)
```

```
[Out] int(x*sin(a+b*ln(c*x^n))^3,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 140, normalized size of antiderivative = 0.89

$$\int x\sin^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx$$
$$=\frac{3\,(b^{3}n^{3}+4\,bn)x^{2}\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^{3}-3\,(3\,b^{3}n^{3}+4\,bn)x^{2}\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-2\,(}{9\,b^{4}n^{4}+40\,b^{2}n^{2}+}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] (3*(b^3*n^3 + 4*b*n)*x^2*cos(b*n*log(x) + b*log(c) + a)^3 - 3*(3*b^3*n^3 +
4*b*n)*x^2*cos(b*n*log(x) + b*log(c) + a) - 2*((b^2*n^2 + 4)*x^2*cos(b*n*lo
g(x) + b*log(c) + a)^2 - (7*b^2*n^2 + 4)*x^2)*sin(b*n*log(x) + b*log(c) + a
))/(9*b^4*n^4 + 40*b^2*n^2 + 16)
```

Sympy [F]

$$\int x\sin^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx$$
$$=\begin{cases}\int x\sin^{3}\left(a-\frac{2i\log\left(cx^{n}\right)}{n}\right)\,dx\\ \int x\sin^{3}\left(a-\frac{2i\log\left(cx^{n}\right)}{3n}\right)\,dx\\ \int x\sin^{3}\left(a+\frac{2i\log\left(cx^{n}\right)}{3n}\right)\,dx\\ \int x\sin^{3}\left(a+\frac{2i\log\left(cx^{n}\right)}{n}\right)\,dx\\ -\frac{9b^{3}n^{3}x^{2}\sin^{2}\left(a+b\log\left(cx^{n}\right)\right)\cos\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}-\frac{6b^{3}n^{3}x^{2}\cos^{3}\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}+\frac{14b^{2}n^{2}x^{2}\sin^{3}\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}+\frac{12b^{2}n^{2}x^{2}\sin\left(a+b\right.}{9b^{4}\right.}\end{cases}$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**3,x)
```

```
[Out] Piecewise((Integral(x*sin(a - 2*I*log(c*x**n)/n)**3, x), Eq(b, -2*I/n)), (I
ntegral(x*sin(a - 2*I*log(c*x**n)/(3*n))**3, x), Eq(b, -2*I/(3*n))), (Integ
```

```
ral(x*sin(a + 2*I*log(c*x**n)/(3*n))**3, x), Eq(b, 2*I/(3*n))), (Integral(x
*sin(a + 2*I*log(c*x**n)/n)**3, x), Eq(b, 2*I/n)), (-9*b**3*n**3*x**2*sin(a
 + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4 + 40*b**2*n**2 + 1
6) - 6*b**3*n**3*x**2*cos(a + b*log(c*x**n))**3/(9*b**4*n**4 + 40*b**2*n**2
 + 16) + 14*b**2*n**2*x**2*sin(a + b*log(c*x**n))**3/(9*b**4*n**4 + 40*b**2
*n**2 + 16) + 12*b**2*n**2*x**2*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n
))**2/(9*b**4*n**4 + 40*b**2*n**2 + 16) - 12*b*n*x**2*sin(a + b*log(c*x**n)
)**2*cos(a + b*log(c*x**n))/(9*b**4*n**4 + 40*b**2*n**2 + 16) + 8*x**2*sin(
a + b*log(c*x**n))**3/(9*b**4*n**4 + 40*b**2*n**2 + 16), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1016 vs. $2(158) = 316$.

Time = 0.23 (sec) , antiderivative size = 1016, normalized size of antiderivative = 6.43

$$\int x \sin^3 (a + b \log (cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*
log(c)) + b^3*cos(3*b*log(c)))*n^3 - 2*(b^2*cos(3*b*log(c))*sin(6*b*log(c))
 - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 12*(b*c
os(6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(
3*b*log(c)))*n - 8*cos(3*b*log(c))*sin(6*b*log(c)) + 8*cos(6*b*log(c))*sin(
3*b*log(c)) - 8*sin(3*b*log(c)))*x^2*cos(3*b*log(x^n) + 3*a) - 3*(9*(b^3*co
s(4*b*log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*s
in(4*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 -
 18*(b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(
c)) + b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log
(c)))*n^2 + 4*(b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*
b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*l
og(c)))*n - 8*cos(3*b*log(c))*sin(4*b*log(c)) + 8*cos(4*b*log(c))*sin(3*b*l
og(c)) - 8*cos(2*b*log(c))*sin(3*b*log(c)) + 8*cos(3*b*log(c))*sin(2*b*log(
c)))*x^2*cos(b*log(x^n) + a) - (3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^
3*cos(6*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c)))*n^3 + 2*(b^2*cos(6
*b*log(c))*cos(3*b*log(c)) + b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(
3*b*log(c)))*n^2 + 12*(b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c)
)*sin(3*b*log(c)) + b*sin(3*b*log(c)))*n + 8*cos(6*b*log(c))*cos(3*b*log(c)
) + 8*sin(6*b*log(c))*sin(3*b*log(c)) + 8*cos(3*b*log(c)))*x^2*sin(3*b*log(
x^n) + 3*a) + 3*(9*(b^3*cos(3*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c
))*sin(3*b*log(c)) + b^3*cos(2*b*log(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(
c))*sin(2*b*log(c)))*n^3 + 18*(b^2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2*co
s(3*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^2*s
in(3*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(3*b*log(c))*sin(4*b*log(c))
```

```
- b*cos(4*b*log(c))*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b
*cos(3*b*log(c))*sin(2*b*log(c)))*n + 8*cos(4*b*log(c))*cos(3*b*log(c)) + 8
*cos(3*b*log(c))*cos(2*b*log(c)) + 8*sin(4*b*log(c))*sin(3*b*log(c)) + 8*si
n(3*b*log(c))*sin(2*b*log(c)))*x^2*sin(b*log(x^n) + a))/(9*(b^4*cos(3*b*log
(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 40*(b^2*cos(3*b*log(c))^2 + b^2*sin(3
*b*log(c))^2)*n^2 + 16*cos(3*b*log(c))^2 + 16*sin(3*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 18117 vs. $2(158) = 316$.

Time = 1.16 (sec) , antiderivative size = 18117, normalized size of antiderivative = 114.66

$$\int x\sin^3\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] 1/8*(3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2
*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x^2*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^3*n^3*x^
2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1
/2*a) - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
```

bs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2
*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/2*a)^2 - 12*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c
) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b^3*n^3*x^2*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*s
gn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*n^2*x
^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a) + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x^2*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1
/2*a)^2 - 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn
(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*

log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2
*a)^2 - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x^2*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b^3*n
^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(3/2*a) + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
+ 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(3/2*a)^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*
b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2
*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b^3*n^3
*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x^2*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2 + 108*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^3*n^
3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))*tan(1/2*a) + 108*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
*tan(3/2*a)^2*tan(1/2*a) + 108*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(3/2*a)^2*tan(1/2*a) - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*

n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2
- 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b^3*n
^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(3/2*a)*tan(1/2*a)^2 - 12*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(3/2*a)*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*
x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2
*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(
1/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(3/2*a) + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 108*b^2*n^2*x^2*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/
2*a)^2 + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*

sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*
a)^2 + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*
a) - 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x^2*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x^2*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x^2*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/2*a)^2 - 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*
b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(3/2*p
i*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*n^2*x
^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*n^
2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*
n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan

(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 12*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 48*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 48*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - 12*

b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 48*b*n*x^2*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a)*tan(1/2*a)^2 - 48*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 12*
b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*
b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*
b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12
*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 1
2*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 1
2*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 1
2*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 -
12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c))) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 4*b^2*n^2*x^2*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 4*b
^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3
/2*a) + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 4*b
^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*

tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4*b^2*n^2*x^2*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*b^2*n^2*x^2*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))*tan(3/2*a)^2 + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
*tan(3/2*a)^2 + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*
a)^2 + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 108
*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 108*b^2*n^2*
x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 108*b^2*n^2*x^2*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) +
108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(3/2*a)^2*tan(1/2*a) - 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 48
*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(1/2*a)^2 - 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*
a)^2 - 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 4*
b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 48*x^2*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(3/2*a)^2*tan(1/2*a)^2 - 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*

tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 48*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 48*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 48*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 48*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 48*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n* log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 48*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 48*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 48*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) - 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs

(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 16*x^2
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) - 48*x^2*e^(1/2*p
i*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/2*a) - 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a) - 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a) - 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a)^2*tan(1/2*a) - 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 48*x^2*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2
- 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 - 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 16*x^2*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))*tan(3/2*a)^2*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(3/2*a)^2*tan(1/2*a)^2 - 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*
a)^2*tan(1/2*a)^2 - 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*

tan(1/2*a)^2 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 12*b*n*x^2*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c
) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 12*b*n*x^2*e
^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*n*x^2*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2 - 48*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(3/2*a) - 48*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)
 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 48*b*n*x^2
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 48*b*n*x^2*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(1/2*a) + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 12*b*n*x^2*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2
 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(1/2*a)^2 + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c))) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 16*x^2*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 16*x^2*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 16*x^2*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a) - 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi

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*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a) + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 16*x^2*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 48*x^2*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(3/2*a)^2 + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2
*a)^2 + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 48*x^2*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 48*x^2*e^(1/2*pi*b*n*sgn(x) -
 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a) - 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/2*a) + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(3/2*a)^2*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 16*x^2*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(1/2*a)^2 - 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 48
*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 16*x^2*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2
- 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*a)*tan(1/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b) - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b) + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
 - 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 48*x^2*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c))) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 16*x^2*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) - 16*x^2*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)
 + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(1/2*a))/(9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^
2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
```

```
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^4*n
^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*a
)^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
+ 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(3/2*a)^2 + 40*b^
2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*a)^2 + 40*b^2*n^2
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4 + 40*b^2
*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(3/2*a)^2 + 40*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(3/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + 16*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2 + 40*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
+ 40*b^2*n^2*tan(3/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 40*b^2*n^2
*tan(1/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 16*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 40*b^2*n^2 + 16*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
3/2*a)^2 + 16*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*tan(3/2*a)^2*tan
(1/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 16*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 16*tan(3/2*a)^2 + 16*tan(1/2*a)^2
+ 16)
```

Mupad [B] (verification not implemented)

Time = 27.39 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.77

$$\int x\sin^3\left(a+b\log\left(cx^n\right)\right)\,dx=-\frac{x^2\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}\,3\mathrm{i}}{-16+b\,n\,8\mathrm{i}}-\frac{3\,x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}{8\,b\,n-16\mathrm{i}}+\frac{x^2\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}\,1\mathrm{i}}{-16+b\,n\,24\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}{24\,b\,n-16\mathrm{i}}$$

```
[In] int(x*sin(a + b*log(c*x^n))^3,x)
```

```
[Out] (x^2*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(b*n*24i - 16) - (3*x^2*exp(a*1i)*(c*x^n
)^(b*1i))/(8*b*n - 16i) - (x^2*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(b*n*8i - 16)
+ (x^2*exp(a*3i)*(c*x^n)^(b*3i))/(24*b*n - 16i)
```

3.15 $\int \sin^3(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 13, antiderivative size = 149

$$\int \sin^3(a+b\log(cx^n))\,dx = -\frac{6b^3n^3x\cos(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4} + \frac{6b^2n^2x\sin(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4} - \frac{3bnx\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{1+9b^2n^2} + \frac{x\sin^3(a+b\log(cx^n))}{1+9b^2n^2}$$

```
[Out] -6*b^3*n^3*x*cos(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)+6*b^2*n^2*x*sin(a+
b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)-3*b*n*x*cos(a+b*ln(c*x^n))*sin(a+b*ln
(c*x^n))^2/(9*b^2*n^2+1)+x*sin(a+b*ln(c*x^n))^3/(9*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.154$, Rules used = {4565, 4563}

$$\int \sin^3(a+b\log(cx^n))\,dx = \frac{x\sin^3(a+b\log(cx^n))}{9b^2n^2+1} - \frac{3bnx\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^2n^2+1} + \frac{6b^2n^2x\sin(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} - \frac{6b^3n^3x\cos(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (-6*b^3*n^3*x*Cos[a + b*Log[c*x^n]])/(1 + 10*b^2*n^2 + 9*b^4*n^4) + (6*b^2*
n^2*x*Sin[a + b*Log[c*x^n]])/(1 + 10*b^2*n^2 + 9*b^4*n^4) - (3*b*n*x*Cos[a
```

```
+ b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^2)/(1 + 9*b^2*n^2) + (x*Sin[a + b*Log
[c*x^n]]^3)/(1 + 9*b^2*n^2)
```

Rule 4563

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] - Simp[b*d*n*x*(Cos[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rule 4565

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Sin[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Sin[d*(a + b*Log[c*x^n])]^(p -
2), x], x] - Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log[c*x
^n])]^(p - 1)/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{3bnx\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{1+9b^2n^2} \\ &\quad+\frac{x\sin^3(a+b\log(cx^n))}{1+9b^2n^2}+\frac{(6b^2n^2)\int\sin(a+b\log(cx^n))\,dx}{1+9b^2n^2} \\ &= -\frac{6b^3n^3x\cos(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4}+\frac{6b^2n^2x\sin(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4} \\ &\quad-\frac{3bnx\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{1+9b^2n^2}+\frac{x\sin^3(a+b\log(cx^n))}{1+9b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.35 (sec) , antiderivative size = 121, normalized size of antiderivative = 0.81

$$\int\sin^3(a+b\log(cx^n))\,dx = -\frac{x(3bn(1+9b^2n^2)\cos(a+b\log(cx^n))-3(bn+b^3n^3)\cos(3(a+b\log(cx^n)))+2(-1-13b^2n^2+(1+b}{4+40b^2n^2+36b^4n^4}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^3,x]
```

```
[Out] -((x*(3*b*n*(1 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] - 3*(b*n + b^3*n^3)*Cos[3
*(a + b*Log[c*x^n])] + 2*(-1 - 13*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a + b*Log[
c*x^n])])*Sin[a + b*Log[c*x^n]]))/(4 + 40*b^2*n^2 + 36*b^4*n^4))
```

Maple [A] (verified)

Time = 1.79 (sec) , antiderivative size = 115, normalized size of antiderivative = 0.77

method	result
parallelrisch	$\frac{27x\left(\frac{bn\left(b^2n^2+1\right)\cos(3b\ln(c\,x^n)+3a)}{9}+\frac{\left(-b^2n^2-1\right)\sin(3b\ln(c\,x^n)+3a)}{27}+(b^2n^2+\frac{1}{9})(-\cos(a+b\ln(c\,x^n))bn+\sin(a+b\ln(c\,x^n)))\right)}{4(9b^4n^4+10b^2n^2+1)}$
default	$-\frac{3b\,e^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(a+b\ln(c\,x^n))}{4n\left(\frac{1}{n^2}+b^2\right)}+\frac{3\,e^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin(a+b\ln(c\,x^n))}{4n^2\left(\frac{1}{n^2}+b^2\right)}+\frac{3b\,e^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(3b\ln(c\,x^n)+3a)}{4n\left(\frac{1}{n^2}+9b^2\right)}-$ e

[In] int(sin(a+b*ln(c*x^n))^3,x,method=_RETURNVERBOSE)

[Out] 27/4*x*(1/9*b*n*(b^2*n^2+1)*cos(3*b*ln(c*x^n)+3*a)+1/27*(-b^2*n^2-1)*sin(3*b*ln(c*x^n)+3*a)+(b^2*n^2+1/9)*(-cos(a+b*ln(c*x^n))*b*n+sin(a+b*ln(c*x^n))))/(9*b^4*n^4+10*b^2*n^2+1)

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 130, normalized size of antiderivative = 0.87

$$\int \sin^3\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$=\frac{3\left(b^3n^3+bn\right)x\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^3-3\left(3\,b^3n^3+bn\right)x\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-\left(\left(b^2n^2+\right.\right.}{9\,b^4n^4+10\,b^2n^2+1}$$

[In] integrate(sin(a+b*log(c*x^n))^3,x, algorithm="fricas")

[Out] (3*(b^3*n^3 + b*n)*x*cos(b*n*log(x) + b*log(c) + a)^3 - 3*(3*b^3*n^3 + b*n)*x*cos(b*n*log(x) + b*log(c) + a) - ((b^2*n^2 + 1)*x*cos(b*n*log(x) + b*log(c) + a)^2 - (7*b^2*n^2 + 1)*x)*sin(b*n*log(x) + b*log(c) + a))/(9*b^4*n^4 + 10*b^2*n^2 + 1)

Sympy [F]

$$\int \sin^3(a+b\log(cx^n))\,dx$$

$$= \begin{cases} \int \sin^3\left(a-\frac{i\log(cx^n)}{n}\right)dx \\ \int \sin^3\left(a-\frac{i\log(cx^n)}{3n}\right)dx \\ \int \sin^3\left(a+\frac{i\log(cx^n)}{3n}\right)dx \\ \int \sin^3\left(a+\frac{i\log(cx^n)}{n}\right)dx \\ -\frac{9b^3n^3x\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} - \frac{6b^3n^3x\cos^3(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} + \frac{7b^2n^2x\sin^3(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} + \frac{6b^2n^2x\sin(a+b\log(cx}{9b^4n^4+1} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**3,x)
```

```
[Out] Piecewise((Integral(sin(a - I*log(c*x**n)/n)**3, x), Eq(b, -I/n)), (Integra
l(sin(a - I*log(c*x**n)/(3*n))**3, x), Eq(b, -I/(3*n))), (Integral(sin(a +
I*log(c*x**n)/(3*n))**3, x), Eq(b, I/(3*n))), (Integral(sin(a + I*log(c*x**
n)/n)**3, x), Eq(b, I/n)), (-9*b**3*n**3*x*sin(a + b*log(c*x**n))**2*cos(a
+ b*log(c*x**n))/(9*b**4*n**4 + 10*b**2*n**2 + 1) - 6*b**3*n**3*x*cos(a + b
*log(c*x**n))**3/(9*b**4*n**4 + 10*b**2*n**2 + 1) + 7*b**2*n**2*x*sin(a + b
*log(c*x**n))**3/(9*b**4*n**4 + 10*b**2*n**2 + 1) + 6*b**2*n**2*x*sin(a + b
*log(c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4 + 10*b**2*n**2 + 1) -
3*b*n*x*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4 + 10*
b**2*n**2 + 1) + x*sin(a + b*log(c*x**n))**3/(9*b**4*n**4 + 10*b**2*n**2 +
1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 990 vs. $2(149) = 298$.

Time = 0.26 (sec) , antiderivative size = 990, normalized size of antiderivative = 6.64

$$\int \sin^3(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*
log(c)) + b^3*cos(3*b*log(c)))*n^3 - (b^2*cos(3*b*log(c))*sin(6*b*log(c)) -
 b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 3*(b*cos(
6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b
*log(c)))*n - cos(3*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(3*b*log
```

```
(c)) - sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) - 3*(9*(b^3*cos(4*b*log(c
))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(
c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 - 9*(b^2*cos
(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c)) + b^2*co
s(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c)))*n^2 +
(b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c)) + b*
sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n - co
s(3*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)) - cos(2*b*l
og(c))*sin(3*b*log(c)) + cos(3*b*log(c))*sin(2*b*log(c)))*x*cos(b*log(x^n)
+ a) - (3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*
b*log(c)) + b^3*sin(3*b*log(c)))*n^3 + (b^2*cos(6*b*log(c))*cos(3*b*log(c))
 + b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 3*(b*co
s(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(3
*b*log(c)))*n + cos(6*b*log(c))*cos(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*l
og(c)) + cos(3*b*log(c)))*x*sin(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(3*b*log
(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b*lo
g(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 + 9*(b^2*c
os(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*
sin(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log(c)))*n^2
+ (b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)) +
b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n +
cos(4*b*log(c))*cos(3*b*log(c)) + cos(3*b*log(c))*cos(2*b*log(c)) + sin(4*b
*log(c))*sin(3*b*log(c)) + sin(3*b*log(c))*sin(2*b*log(c)))*x*sin(b*log(x^n
) + a))/(9*(b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 10*(b^2*co
s(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + cos(3*b*log(c))^2 + sin(3*b*
log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 17522 vs. $2(149) = 298$.

Time = 0.77 (sec) , antiderivative size = 17522, normalized size of antiderivative = 117.60

$$\int \sin^3(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] 1/8*(3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
```

+ 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b^3*n^3*x*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)^2 + 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a)^2 + 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^3*n^3*x*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)
^2*tan(1/2*a) + 108*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 3*b^3*n^3*x*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/2*a)^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^3*n^3*x*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/2*a)^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b^3*n^3*x*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)*tan(1/2*a)^2 - 12*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 3*
b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2
7*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^
2 + 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a
)^2 - 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*
a)^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/

2*a)^2 - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c
) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*t
an(1/2*a)^2 - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi
*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)
^2 + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b
^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a)^2 - 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2 - 12*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b^3*n^3*
x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a) + 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3
/2*a)^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 2
7*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*b^3*n^3*x

```
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b^3*n^3*x*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi
*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a)^2 + 108*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) +
 108*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) +
108*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) -
3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^3*n^3*x
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^3*n^3*x*e^(-1/2*pi
*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*a)^2 + 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(1/2*a)^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*
b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2
*a)^2 - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*
b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b^3*n^3*x*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 12*b^3*n^3*x*e^
(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 3*b^3*n^3*x*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*ta
n(1/2*a)^2 + 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3
*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*
```

b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(3/2
*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a) + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 54*b^2*n^2*x*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2
*a)^2 + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^2
*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/2*a) + 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(3/2*a)^2*tan(1/2*a) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 54*b^2*n^2
*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^

2*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 12*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b

```
*log(abs(c)))^2*tan(3/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^3*n^3*
x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^3*n^3*x*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)
+ 12*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 3*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 27*b^3*n^3*x*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2
+ 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(1/2*a)^2 + 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi
*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b*n*x
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/2*a)^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b*n*x*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/2*a)^2 - 12*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*n*x*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)*tan(1/2*a)^2 + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
^2*tan(1/2*a)^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a)^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*ta
n(1/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(
1/2*a)^2 - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2
*a)^2 - 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)
^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
```

```
 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c))) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 2*b^2*n^2*x
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2 + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 2*b^
2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 2*b^2*n^2*x*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(3/2*a) + 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(3/2*a)^2 + 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^
2 + 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*b^2*n^
2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*b^2*n^2*x*e^(1/2*p
i*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*a) - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a) - 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a
) + 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(3/2*a)^2*tan(1/2*a) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 6*x*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(3/2*a)^2*tan(1/2*a) - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 2*b^2*n^2*x*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2
```

*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(1/2*a)^2 - 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
1/2*a)^2 - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3
/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 2*x*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(3/2*a)*tan(1/2*a)^2 + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*x*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*x*e
^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b
^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) -
27*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
) - 27*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2
*pi*b) + 3*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b) - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*b*n*x
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2 - 12*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 3*b*n*
x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b*n*x*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(3/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b

*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*
a)^2 - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*b*n*x*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*b*n*x*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2 + 12*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*b*n*x*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)
+ 12*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 12*b
*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 3*b*n*x*e
^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*a)^2 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^
2 + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b*n*x*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/2*a)^2 - 12*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(
1/2*a)^2 - 12*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a
)^2 - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b*n*x*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*
a)^2 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*p
i*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
))) - 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 54*b^2*n^2*x*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab

s(x)) + 1/2*b*log(abs(c))) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) - 2*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) + 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 54*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) + 54*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) - 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*

b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2
*a)*tan(1/2*a)^2 - 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1
/2*a)^2 - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2
+ 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*x*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*x*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*x*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2 - 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*b*n*x*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2 + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*b*n*x
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(3/2*a) - 12*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)
- 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*a)^2 - 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*a)^2 - 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 3*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 12*b*n*x*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))*tan(1/2*a) + 12*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(1/2*a) + 3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(1/2*a)^2 + 3*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 3*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 3*b*n*x*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 6*x*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
+ 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan

(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c))) - 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2 - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi
*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a) + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
 + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 2*
x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 2*x*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(3/2*a) + 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2
*a)^2 + 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*x*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(3/2*a)^2 + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 6*x
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 6*x*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/2*a) - 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/2*a) + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*a)^2*tan(1/2*a) + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 2*x*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))*tan(1/2*a)^2 - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^
2 - 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*x*e^(-1/2*pi*b*n
*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 2*x*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 +
3*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 3
*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 3*
b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + 3*
b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - 2*
x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c))) - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))

) + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c))) - 2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*a) - 2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*a) + 6*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*a) + 6*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*a))/(9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)
^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^
2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*
b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4
*n^4*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 +
9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(3/
2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*a)^
2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^
4*n^4 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + 10*b^2*n^2*tan(3/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10
*b^2*n^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2 + tan(

```
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^
2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(3/2*a)^2*tan(1/2*a)^2 + tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2 + tan(3/2*a)^2 + tan(1/2*a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.74 (sec) , antiderivative size = 114, normalized size of antiderivative = 0.77

$$\int \sin^3(a+b\log(cx^n))\,dx = -\frac{x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,1\mathrm{i}}}\,3\mathrm{i}}{-8+b\,n\,8\mathrm{i}} - \frac{3\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{8\,b\,n-8\mathrm{i}} + \frac{x\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,3\mathrm{i}}}\,1\mathrm{i}}{-8+b\,n\,24\mathrm{i}} + \frac{x\,\mathrm{e}^{a\,3\mathrm{i}}\,(c\,x^n)^{b\,3\mathrm{i}}}{24\,b\,n-8\mathrm{i}}$$

```
[In] int(sin(a + b*log(c*x^n))^3,x)
```

```
[Out] (x*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(b*n*24i - 8) - (3*x*exp(a*1i)*(c*x^n)^(b*
1i))/(8*b*n - 8i) - (x*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(b*n*8i - 8) + (x*exp(
a*3i)*(c*x^n)^(b*3i))/(24*b*n - 8i)
```

3.16 $\int \frac{\sin^3(a+b\log(cx^n))}{x} dx$

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Rubi [A] (verified) 227
Mathematica [A] (verified) 228
Maple [A] (verified) 228
Fricas [A] (verification not implemented) 228
Sympy [B] (verification not implemented) 229
Maxima [B] (verification not implemented) 229
Giac [F] 230
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Optimal result

Integrand size = 17, antiderivative size = 43

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(a+b\log(cx^n))}{bn} + \frac{\cos^3(a+b\log(cx^n))}{3bn}$$

```
[Out] -cos(a+b*ln(c*x^n))/b/n+1/3*cos(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 43, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {2713}

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = \frac{\cos^3(a+b\log(cx^n))}{3bn} - \frac{\cos(a+b\log(cx^n))}{bn}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^3/x,x]
[Out] -(Cos[a + b*Log[c*x^n]]/(b*n)) + Cos[a + b*Log[c*x^n]]^3/(3*b*n)
```

Rule 2713

```
Int[sin[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
nd[(1 - x^2)^((n - 1)/2), x], x], x, Cos[c + d*x]], x] /; FreeQ[{c, d}, x]
&& IGtQ[(n - 1)/2, 0]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \sin^3(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{\text{Subst}\left(\int (1-x^2)\,dx, x, \cos(a+b\log(cx^n))\right)}{bn} \\ &= -\frac{\cos(a+b\log(cx^n))}{bn} + \frac{\cos^3(a+b\log(cx^n))}{3bn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 45, normalized size of antiderivative = 1.05

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = -\frac{3\cos(a+b\log(cx^n))}{4bn}+\frac{\cos(3(a+b\log(cx^n)))}{12bn}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^3/x,x]
[Out] (-3*Cos[a + b*Log[c*x^n]])/(4*b*n) + Cos[3*(a + b*Log[c*x^n])]/(12*b*n)
```

Maple [A] (verified)

Time = 2.34 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.81

method	result	size
derivativedivides	$-\frac{\left(2+\sin(a+b\ln(c\,x^n))^2\right)\cos(a+b\ln(c\,x^n))}{3nb}$	35
default	$-\frac{\left(2+\sin(a+b\ln(c\,x^n))^2\right)\cos(a+b\ln(c\,x^n))}{3nb}$	35
parallelrisch	$\frac{-9\cos(a+b\ln(c\,x^n))+\cos(3b\ln(c\,x^n)+3a)-8}{12bn}$	38

```
[In] int(sin(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)
[Out] -1/3/n/b*(2+sin(a+b*ln(c*x^n))^2)*cos(a+b*ln(c*x^n))
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.86

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = \frac{\cos(bn\log(x)+b\log(c)+a)^3-3\,\cos(bn\log(x)+b\log(c)+a)}{3\,bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x,x, algorithm="fricas")
[Out] 1/3*(cos(b*n*log(x) + b*log(c) + a)^3 - 3*cos(b*n*log(x) + b*log(c) + a))/(
b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 73 vs. 2(32) = 64.

Time = 1.22 (sec) , antiderivative size = 73, normalized size of antiderivative = 1.70

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\sin^3(a) & \text{for } b=0\wedge(b=0\vee n=0) \\ \log(x)\sin^3(a+b\log(c)) & \text{for } n=0 \\ -\frac{\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{bn}-\frac{2\cos^3(a+b\log(cx^n))}{3bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**3/x,x)
```

```
[Out] Piecewise((log(x)*sin(a)**3, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*sin
(a + b*log(c))**3, Eq(n, 0)), (-sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x
**n))/(b*n) - 2*cos(a + b*log(c*x**n))**3/(3*b*n), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 233 vs. 2(41) = 82.

Time = 0.23 (sec) , antiderivative size = 233, normalized size of antiderivative = 5.42

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = \frac{(\cos(6b\log(c))\cos(3b\log(c))+\sin(6b\log(c))\sin(3b\log(c))+\cos(3b\log(c)))\cos(3b\log(x^n)+3a)-}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x,x, algorithm="maxima")
```

```
[Out] 1/24*((cos(6*b*log(c))*cos(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) +
cos(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 9*(cos(4*b*log(c))*cos(3*b*log(c
)) + cos(3*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)) + si
n(3*b*log(c))*sin(2*b*log(c)))*cos(b*log(x^n) + a) - (cos(3*b*log(c))*sin(6
*b*log(c)) - cos(6*b*log(c))*sin(3*b*log(c)) + sin(3*b*log(c)))*sin(3*b*log
(x^n) + 3*a) + 9*(cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b
*log(c)) + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)
))*sin(b*log(x^n) + a))/(b*n)
```

Giac [F]

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^3}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^3/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.54 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.86

$$\int \frac{\sin^3(a+b\log(cx^n))}{x}\,dx = -\frac{3\cos(a+b\ln(c\,x^n)) - \cos(a+b\ln(c\,x^n))^3}{3\,b\,n}$$

```
[In] int(sin(a + b*log(c*x^n))^3/x,x)
[Out] -(3*cos(a + b*log(c*x^n)) - cos(a + b*log(c*x^n))^3)/(3*b*n)
```

3.17 $\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx$

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Mathematica [A] (verified) . . . 232
Maple [A] (verified) . . . 233
Fricas [A] (verification not implemented) . . . 233
Sympy [C] (verification not implemented) . . . 234
Maxima [B] (verification not implemented) . . . 235
Giac [F] . . . 236
Mupad [F(-1)] . . . 236

Optimal result

Integrand size = 17, antiderivative size = 158

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx = -\frac{6b^3n^3\cos(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)\,x} - \frac{6b^2n^2\sin(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)\,x} - \frac{3bn\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{(1+9b^2n^2)\,x} - \frac{\sin^3(a+b\log(cx^n))}{(1+9b^2n^2)\,x}$$

```
[Out] -6*b^3*n^3*cos(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)/x-6*b^2*n^2*sin(a+b*
ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)/x-3*b*n*cos(a+b*ln(c*x^n))*sin(a+b*ln(c
*x^n))^2/(9*b^2*n^2+1)/x-sin(a+b*ln(c*x^n))^3/(9*b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 4573}

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx = -\frac{\sin^3(a+b\log(cx^n))}{x(9b^2n^2+1)} - \frac{3bn\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x(9b^2n^2+1)} - \frac{6b^2n^2\sin(a+b\log(cx^n))}{x(9b^4n^4+10b^2n^2+1)} - \frac{6b^3n^3\cos(a+b\log(cx^n))}{x(9b^4n^4+10b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] (-6*b^3*n^3*Cos[a + b*Log[c*x^n]])/((1 + 10*b^2*n^2 + 9*b^4*n^4)*x) - (6*b^
2*n^2*Sin[a + b*Log[c*x^n]])/((1 + 10*b^2*n^2 + 9*b^4*n^4)*x) - (3*b*n*Cos[
a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^2)/((1 + 9*b^2*n^2)*x) - Sin[a + b*
Log[c*x^n]]^3/((1 + 9*b^2*n^2)*x)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{3bn\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{(1+9b^2n^2)x} - \frac{\sin^3(a+b\log(cx^n))}{(1+9b^2n^2)x} + \frac{(6b^2n^2)\int\frac{\sin(a+b\log(cx^n))}{x^2}\,dx}{1+9b^2n^2}\\ &= -\frac{6b^3n^3\cos(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)x} - \frac{6b^2n^2\sin(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)x} - \frac{3bn\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{(1+9b^2n^2)x} - \frac{\sin^3(a+b\log(cx^n))}{(1+9b^2n^2)x}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.29 (sec) , antiderivative size = 125, normalized size of antiderivative = 0.79

$$\int\frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx$$

$$= \frac{-3bn(1+9b^2n^2)\cos(a+b\log(cx^n)) + 3(bn+b^3n^3)\cos(3(a+b\log(cx^n))) + 2(-1-13b^2n^2+(1+b^2n^2)}{4(1+10b^2n^2+9b^4n^4)x}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] (-3*b*n*(1 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + 3*(b*n + b^3*n^3)*Cos[3*(a
+ b*Log[c*x^n])] + 2*(-1 - 13*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a + b*Log[c*x^
n])])*Sin[a + b*Log[c*x^n]])/(4*(1 + 10*b^2*n^2 + 9*b^4*n^4)*x)
```

Maple [A] (verified)

Time = 3.70 (sec) , antiderivative size = 221, normalized size of antiderivative = 1.40

method	result
parallelrisch	$\frac{6\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{6}b^{3}n^{3}-12\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{5}b^{2}n^{2}+\left(18b^{3}n^{3}+12bn\right)\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{4}+\left(-32b^{2}n^{2}-8\right)\tan\left(\frac{a}{2}+b\ln\right.}{9\left(b^{2}n^{2}+1\right)x\left(b^{2}n^{2}+\frac{1}{9}\right)\left(1+\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\right.\right.\right.}$

```
[In] int(sin(a+b*ln(c*x^n))^3/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/9*(6*tan(1/2*a+b*ln((c*x^n)^(1/2)))^6*b^3*n^3-12*tan(1/2*a+b*ln((c*x^n)^(
1/2)))^5*b^2*n^2+(18*b^3*n^3+12*b*n)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^4+(-32*
b^2*n^2-8)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^3+(-18*b^3*n^3-12*b*n)*tan(1/2*a+
b*ln((c*x^n)^(1/2)))^2-12*tan(1/2*a+b*ln((c*x^n)^(1/2)))*b^2*n^2-6*b^3*n^3)
/(b^2*n^2+1)/x/(b^2*n^2+1/9)/(1+tan(1/2*a+b*ln((c*x^n)^(1/2)))^2)^3
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 127, normalized size of antiderivative = 0.80

$$\int \frac{\sin^{3}\left(a+b\log\left(cx^{n}\right)\right)}{x^{2}}\,dx$$
$$= \frac{3\left(b^{3}n^{3}+bn\right)\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^{3}-3\left(3\,b^{3}n^{3}+bn\right)\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-\left(7\,b^{2}n^{2}-\right.}{\left(9\,b^{4}n^{4}+10\,b^{2}n^{2}+1\right)x}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^2,x, algorithm="fricas")
```

```
[Out] (3*(b^3*n^3 + b*n)*cos(b*n*log(x) + b*log(c) + a)^3 - 3*(3*b^3*n^3 + b*n)*c
os(b*n*log(x) + b*log(c) + a) - (7*b^2*n^2 - (b^2*n^2 + 1)*cos(b*n*log(x) +
 b*log(c) + a)^2 + 1)*sin(b*n*log(x) + b*log(c) + a))/((9*b^4*n^4 + 10*b^2*
n^2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 34.11 (sec) , antiderivative size = 775, normalized size of antiderivative = 4.91

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx = \begin{cases} -\frac{\sin\left(3a-\frac{3i\log(cx^n)}{n}\right)}{32x}-\frac{3i\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{8x}+\frac{3i\cos\left(3a-\frac{3i\log(cx^n)}{n}\right)}{32x}+\frac{3\log(cx^n)\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{8nx}-\frac{3i\log(cx^n)\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{27\sin\left(a-\frac{i\log(cx^n)}{3n}\right)}{32x}+\frac{\sin\left(3a-\frac{i\log(cx^n)}{n}\right)}{8x}+\frac{9i\cos\left(a-\frac{i\log(cx^n)}{3n}\right)}{32x}-\frac{\log(cx^n)\sin\left(3a-\frac{i\log(cx^n)}{n}\right)}{8nx}+\frac{i\log(cx^n)\cos\left(3a-\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{27\sin\left(a+\frac{i\log(cx^n)}{3n}\right)}{32x}-\frac{9i\cos\left(a+\frac{i\log(cx^n)}{3n}\right)}{32x}-\frac{i\cos\left(3a+\frac{i\log(cx^n)}{n}\right)}{8x}-\frac{\log(cx^n)\sin\left(3a+\frac{i\log(cx^n)}{n}\right)}{8nx}-\frac{i\log(cx^n)\cos\left(3a+\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{3\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{8x}-\frac{\sin\left(3a+\frac{3i\log(cx^n)}{n}\right)}{32x}-\frac{3i\cos\left(3a+\frac{3i\log(cx^n)}{n}\right)}{32x}+\frac{3\log(cx^n)\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{8nx}+\frac{3i\log(cx^n)\cos\left(a+\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{9b^3n^3\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x}-\frac{6b^3n^3\cos^3(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x}-\frac{7b^2n^2\sin^3(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x}-\frac{6b^2n^2\sin(a+b\log(cx^n))\cos^2}{9b^4n^4x+10b^2n^2x} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**3/x**2,x)
```

```
[Out] Piecewise((-sin(3*a - 3*I*log(c*x**n)/n)/(32*x) - 3*I*cos(a - I*log(c*x**n)
/n)/(8*x) + 3*I*cos(3*a - 3*I*log(c*x**n)/n)/(32*x) + 3*log(c*x**n)*sin(a -
 I*log(c*x**n)/n)/(8*n*x) - 3*I*log(c*x**n)*cos(a - I*log(c*x**n)/n)/(8*n*x
), Eq(b, -I/n)), (-27*sin(a - I*log(c*x**n)/(3*n))/(32*x) + sin(3*a - I*log
(c*x**n)/n)/(8*x) + 9*I*cos(a - I*log(c*x**n)/(3*n))/(32*x) - log(c*x**n)*s
in(3*a - I*log(c*x**n)/n)/(8*n*x) + I*log(c*x**n)*cos(3*a - I*log(c*x**n)/n
)/(8*n*x), Eq(b, -I/(3*n))), (-27*sin(a + I*log(c*x**n)/(3*n))/(32*x) - 9*I
*cos(a + I*log(c*x**n)/(3*n))/(32*x) - I*cos(3*a + I*log(c*x**n)/n)/(8*x) -
 log(c*x**n)*sin(3*a + I*log(c*x**n)/n)/(8*n*x) - I*log(c*x**n)*cos(3*a + I
*log(c*x**n)/n)/(8*n*x), Eq(b, I/(3*n))), (-3*sin(a + I*log(c*x**n)/n)/(8*x
) - sin(3*a + 3*I*log(c*x**n)/n)/(32*x) - 3*I*cos(3*a + 3*I*log(c*x**n)/n)/
(32*x) + 3*log(c*x**n)*sin(a + I*log(c*x**n)/n)/(8*n*x) + 3*I*log(c*x**n)*c
os(a + I*log(c*x**n)/n)/(8*n*x), Eq(b, I/n)), (-9*b**3*n**3*sin(a + b*log(c
*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4*x + 10*b**2*n**2*x + x) - 6*
b**3*n**3*cos(a + b*log(c*x**n))**3/(9*b**4*n**4*x + 10*b**2*n**2*x + x) -
7*b**2*n**2*sin(a + b*log(c*x**n))**3/(9*b**4*n**4*x + 10*b**2*n**2*x + x)
- 6*b**2*n**2*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4
*x + 10*b**2*n**2*x + x) - 3*b*n*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*
x**n))/(9*b**4*n**4*x + 10*b**2*n**2*x + x) - sin(a + b*log(c*x**n))**3/(9*
b**4*n**4*x + 10*b**2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 995 vs. $2(158) = 316$.

Time = 0.25 (sec) , antiderivative size = 995, normalized size of antiderivative = 6.30

$$\int \frac{\sin^3(a + b\log(cx^n))}{x^2} \, dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^2,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*
log(c)) + b^3*cos(3*b*log(c)))*n^3 + (b^2*cos(3*b*log(c))*sin(6*b*log(c)) -
 b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 3*(b*cos(
6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b
*log(c)))*n + cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(3*b*log
(c)) + sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 3*(9*(b^3*cos(4*b*log(c))
*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c)
)*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 + 9*(b^2*cos(3
*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c)) + b^2*cos(
2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c)))*n^2 + (b
*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c)) + b*si
n(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(
3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)) + cos(2*b*log
(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*cos(b*log(x^n) + a)
 - (3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*b*lo
g(c)) + b^3*sin(3*b*log(c)))*n^3 - (b^2*cos(6*b*log(c))*cos(3*b*log(c)) + b
^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 3*(b*cos(3*
b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*l
og(c)))*n - cos(6*b*log(c))*cos(3*b*log(c)) - sin(6*b*log(c))*sin(3*b*log(c
)) - cos(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(3*b*log(c))*s
in(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b*log(c))*
sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 - 9*(b^2*cos(4*b
*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*
b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log(c)))*n^2 + (b*c
os(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)) + b*cos(
2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(4*
b*log(c))*cos(3*b*log(c)) - cos(3*b*log(c))*cos(2*b*log(c)) - sin(4*b*log(c
))*sin(3*b*log(c)) - sin(3*b*log(c))*sin(2*b*log(c)))*sin(b*log(x^n) + a))/
((9*(b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 10*(b^2*cos(3*b*l
og(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + cos(3*b*log(c))^2 + sin(3*b*log(c))
^2)*x)
```

Giac [F]

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(b\log(cx^n)+a)^3}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^2,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^3/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(a+b\,\ln(c\,x^n))^3}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^3/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^3/x^2, x)
```

3.18 $\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 158

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx = -\frac{6b^3n^3\cos(a+b\log(cx^n))}{(16+40b^2n^2+9b^4n^4)\,x^2} - \frac{12b^2n^2\sin(a+b\log(cx^n))}{(16+40b^2n^2+9b^4n^4)\,x^2} - \frac{3bn\cos(a+b\log(cx^n))\sin^2(a+b\log(cx^n))}{(4+9b^2n^2)\,x^2} - \frac{2\sin^3(a+b\log(cx^n))}{(4+9b^2n^2)\,x^2}$$

```
[Out] -6*b^3*n^3*cos(a+b*ln(c*x^n))/(9*b^4*n^4+40*b^2*n^2+16)/x^2-12*b^2*n^2*sin(
a+b*ln(c*x^n))/(9*b^4*n^4+40*b^2*n^2+16)/x^2-3*b*n*cos(a+b*ln(c*x^n))*sin(a
+b*ln(c*x^n))^2/(9*b^2*n^2+4)/x^2-2*sin(a+b*ln(c*x^n))^3/(9*b^2*n^2+4)/x^2
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4575, 4573}

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx = -\frac{2\sin^3(a+b\log(cx^n))}{x^2(9b^2n^2+4)} - \frac{3bn\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x^2(9b^2n^2+4)} - \frac{12b^2n^2\sin(a+b\log(cx^n))}{x^2(9b^4n^4+40b^2n^2+16)} - \frac{6b^3n^3\cos(a+b\log(cx^n))}{x^2(9b^4n^4+40b^2n^2+16)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^3/x^3,x]
```

```
[Out] (-6*b^3*n^3*Cos[a + b*Log[c*x^n]])/((16 + 40*b^2*n^2 + 9*b^4*n^4)*x^2) - (1
2*b^2*n^2*Sin[a + b*Log[c*x^n]])/((16 + 40*b^2*n^2 + 9*b^4*n^4)*x^2) - (3*b
*n*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^2)/((4 + 9*b^2*n^2)*x^2) - (
2*Sin[a + b*Log[c*x^n]]^3)/((4 + 9*b^2*n^2)*x^2)
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{3bn\cos\left(a+b\log\left(cx^n\right)\right)\sin^2\left(a+b\log\left(cx^n\right)\right)}{\left(4+9b^2n^2\right)x^2} \\ &\quad -\frac{2\sin^3\left(a+b\log\left(cx^n\right)\right)}{\left(4+9b^2n^2\right)x^2}+\frac{\left(6b^2n^2\right)\int\frac{\sin(a+b\log(cx^n))}{x^3}\,dx}{4+9b^2n^2} \\ &= -\frac{6b^3n^3\cos\left(a+b\log\left(cx^n\right)\right)}{\left(16+40b^2n^2+9b^4n^4\right)x^2}-\frac{12b^2n^2\sin\left(a+b\log\left(cx^n\right)\right)}{\left(16+40b^2n^2+9b^4n^4\right)x^2} \\ &\quad -\frac{3bn\cos\left(a+b\log\left(cx^n\right)\right)\sin^2\left(a+b\log\left(cx^n\right)\right)}{\left(4+9b^2n^2\right)x^2}-\frac{2\sin^3\left(a+b\log\left(cx^n\right)\right)}{\left(4+9b^2n^2\right)x^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.31 (sec) , antiderivative size = 125, normalized size of antiderivative = 0.79

$$\int\frac{\sin^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx$$
$$=\frac{-3bn(4+9b^2n^2)\cos\left(a+b\log\left(cx^n\right)\right)+3bn(4+b^2n^2)\cos\left(3(a+b\log\left(cx^n\right))\right)+4(-4-13b^2n^2+(4+b^2n^2}{4\left(16+40b^2n^2+9b^4n^4\right)x^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^3/x^3,x]
```

```
[Out] (-3*b*n*(4 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + 3*b*n*(4 + b^2*n^2)*Cos[3*(
a + b*Log[c*x^n])] + 4*(-4 - 13*b^2*n^2 + (4 + b^2*n^2)*Cos[2*(a + b*Log[c*
x^n])])*Sin[a + b*Log[c*x^n]])/(4*(16 + 40*b^2*n^2 + 9*b^4*n^4)*x^2)
```

Maple [A] (verified)

Time = 6.38 (sec) , antiderivative size = 221, normalized size of antiderivative = 1.40

method	result
parallelrisch	$\frac{6\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{6} b^{3} n^{3}-24\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{5} b^{2} n^{2}+\left(18 b^{3} n^{3}+48 b n\right)\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^{n}}\right)\right)^{4}+\left(-64 b^{2} n^{2}-64\right)\tan\left(\frac{a}{2}+b\,\mathrm{l}\right.}{9x^{2}\left(b^{2}n^{2}+4\right)\left(b^{2}n^{2}+\frac{4}{9}\right)\left(1+\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c}\right.\right.\right.}$

```
[In] int(sin(a+b*ln(c*x^n))^3/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/9*(6*tan(1/2*a+b*ln((c*x^n)^(1/2)))^6*b^3*n^3-24*tan(1/2*a+b*ln((c*x^n)^(
1/2)))^5*b^2*n^2+(18*b^3*n^3+48*b*n)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^4+(-64*
b^2*n^2-64)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^3+(-18*b^3*n^3-48*b*n)*tan(1/2*a
+b*ln((c*x^n)^(1/2)))^2-24*tan(1/2*a+b*ln((c*x^n)^(1/2)))*b^2*n^2-6*b^3*n^3
)/x^2/(b^2*n^2+4)/(b^2*n^2+4/9)/(1+tan(1/2*a+b*ln((c*x^n)^(1/2)))^2)^3
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 129, normalized size of antiderivative = 0.82

$$\int \frac{\sin^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{3\left(b^3n^3+4\,bn\right)\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^3-3\left(3\,b^3n^3+4\,bn\right)\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)-2\left(7\,b^2n\right.}{\left(9\,b^4n^4+40\,b^2n^2+16\right)x^2}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^3,x, algorithm="fricas")
```

```
[Out] (3*(b^3*n^3 + 4*b*n)*cos(b*n*log(x) + b*log(c) + a)^3 - 3*(3*b^3*n^3 + 4*b*
n)*cos(b*n*log(x) + b*log(c) + a) - 2*(7*b^2*n^2 - (b^2*n^2 + 4)*cos(b*n*lo
g(x) + b*log(c) + a)^2 + 4)*sin(b*n*log(x) + b*log(c) + a))/((9*b^4*n^4 + 4
0*b^2*n^2 + 16)*x^2)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 35.84 (sec) , antiderivative size = 886, normalized size of antiderivative = 5.61

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**3/x**3,x)
```

```
[Out] Piecewise((-sin(3*a - 6*I*log(c*x**n)/n)/(64*x**2) - 3*I*cos(a - 2*I*log(c*
x**n)/n)/(16*x**2) + 3*I*cos(3*a - 6*I*log(c*x**n)/n)/(64*x**2) + 3*log(c*x
**n)*sin(a - 2*I*log(c*x**n)/n)/(8*n*x**2) - 3*I*log(c*x**n)*cos(a - 2*I*lo
g(c*x**n)/n)/(8*n*x**2), Eq(b, -2*I/n)), (-27*sin(a - 2*I*log(c*x**n)/(3*n)
)/(64*x**2) + sin(3*a - 2*I*log(c*x**n)/n)/(16*x**2) + 9*I*cos(a - 2*I*log(
c*x**n)/(3*n))/(64*x**2) - log(c*x**n)*sin(3*a - 2*I*log(c*x**n)/n)/(8*n*x*
*2) + I*log(c*x**n)*cos(3*a - 2*I*log(c*x**n)/n)/(8*n*x**2), Eq(b, -2*I/(3*
n))), (-27*sin(a + 2*I*log(c*x**n)/(3*n))/(64*x**2) - 9*I*cos(a + 2*I*log(c
*x**n)/(3*n))/(64*x**2) - I*cos(3*a + 2*I*log(c*x**n)/n)/(16*x**2) - log(c*
x**n)*sin(3*a + 2*I*log(c*x**n)/n)/(8*n*x**2) - I*log(c*x**n)*cos(3*a + 2*I
*log(c*x**n)/n)/(8*n*x**2), Eq(b, 2*I/(3*n))), (-3*sin(a + 2*I*log(c*x**n)/
n)/(16*x**2) - sin(3*a + 6*I*log(c*x**n)/n)/(64*x**2) - 3*I*cos(3*a + 6*I*l
og(c*x**n)/n)/(64*x**2) + 3*log(c*x**n)*sin(a + 2*I*log(c*x**n)/n)/(8*n*x**
2) + 3*I*log(c*x**n)*cos(a + 2*I*log(c*x**n)/n)/(8*n*x**2), Eq(b, 2*I/n)),
(-9*b**3*n**3*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4
*x**2 + 40*b**2*n**2*x**2 + 16*x**2) - 6*b**3*n**3*cos(a + b*log(c*x**n))**
3/(9*b**4*n**4*x**2 + 40*b**2*n**2*x**2 + 16*x**2) - 14*b**2*n**2*sin(a + b
*log(c*x**n))**3/(9*b**4*n**4*x**2 + 40*b**2*n**2*x**2 + 16*x**2) - 12*b**2
*n**2*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4*x**2 +
40*b**2*n**2*x**2 + 16*x**2) - 12*b*n*sin(a + b*log(c*x**n))**2*cos(a + b*l
og(c*x**n))/(9*b**4*n**4*x**2 + 40*b**2*n**2*x**2 + 16*x**2) - 8*sin(a + b*
log(c*x**n))**3/(9*b**4*n**4*x**2 + 40*b**2*n**2*x**2 + 16*x**2), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1007 vs. $2(158) = 316$.

Time = 0.25 (sec) , antiderivative size = 1007, normalized size of antiderivative = 6.37

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^3,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*
log(c)) + b^3*cos(3*b*log(c)))*n^3 + 2*(b^2*cos(3*b*log(c))*sin(6*b*log(c))
```

```
 - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 12*(b*c
os(6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(
3*b*log(c)))*n + 8*cos(3*b*log(c))*sin(6*b*log(c)) - 8*cos(6*b*log(c))*sin(
3*b*log(c)) + 8*sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 3*(9*(b^3*cos(4*
b*log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4
*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 + 18*
(b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c))
+ b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c))
)*n^2 + 4*(b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*lo
g(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c
)))*n + 8*cos(3*b*log(c))*sin(4*b*log(c)) - 8*cos(4*b*log(c))*sin(3*b*log(c
)) + 8*cos(2*b*log(c))*sin(3*b*log(c)) - 8*cos(3*b*log(c))*sin(2*b*log(c)))
*cos(b*log(x^n) + a) - (3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*
b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c)))*n^3 - 2*(b^2*cos(6*b*log(c
))*cos(3*b*log(c)) + b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(
c)))*n^2 + 12*(b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*
b*log(c)) + b*sin(3*b*log(c)))*n - 8*cos(6*b*log(c))*cos(3*b*log(c)) - 8*si
n(6*b*log(c))*sin(3*b*log(c)) - 8*cos(3*b*log(c)))*sin(3*b*log(x^n) + 3*a)
+ 3*(9*(b^3*cos(3*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*l
og(c)) + b^3*cos(2*b*log(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*
log(c)))*n^3 - 18*(b^2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c)
)*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c
))*sin(2*b*log(c)))*n^2 + 4*(b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*
log(c))*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log
(c))*sin(2*b*log(c)))*n - 8*cos(4*b*log(c))*cos(3*b*log(c)) - 8*cos(3*b*log
(c))*cos(2*b*log(c)) - 8*sin(4*b*log(c))*sin(3*b*log(c)) - 8*sin(3*b*log(c)
)*sin(2*b*log(c)))*sin(b*log(x^n) + a))/((9*(b^4*cos(3*b*log(c))^2 + b^4*si
n(3*b*log(c))^2)*n^4 + 40*(b^2*cos(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*n
^2 + 16*cos(3*b*log(c))^2 + 16*sin(3*b*log(c))^2)*x^2)
```

Giac [F]

$$\int \frac{\sin^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sin\left(b\log\left(cx^n\right)+a\right)^3}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^3/x^3,x, algorithm="giac")
```

```
[Out] integrate(sin(b*log(c*x^n) + a)^3/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^3(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^3}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^3/x^3,x)
[Out] int(sin(a + b*log(c*x^n))^3/x^3, x)
```

3.19 $\int x^2 \sin^4(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 202

$$\int x^2 \sin^4(a+b\log(cx^n))\,dx = \frac{8b^4n^4x^3}{81+180b^2n^2+64b^4n^4} - \frac{24b^3n^3x^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} + \frac{36b^2n^2x^3\sin^2(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} - \frac{4bnx^3\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{9+16b^2n^2} + \frac{3x^3\sin^4(a+b\log(cx^n))}{9+16b^2n^2}$$

```
[Out] 8*b^4*n^4*x^3/(64*b^4*n^4+180*b^2*n^2+81)-24*b^3*n^3*x^3*cos(a+b*ln(c*x^n))
*sin(a+b*ln(c*x^n))/(64*b^4*n^4+180*b^2*n^2+81)+36*b^2*n^2*x^3*sin(a+b*ln(c
*x^n))^2/(64*b^4*n^4+180*b^2*n^2+81)-4*b*n*x^3*cos(a+b*ln(c*x^n))*sin(a+b*l
n(c*x^n))^3/(16*b^2*n^2+9)+3*x^3*sin(a+b*ln(c*x^n))^4/(16*b^2*n^2+9)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 202, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used

$= \{4575, 30\}$

$$\int x^2 \sin^4(a+b\log(cx^n))\,dx = \frac{3x^3\sin^4(a+b\log(cx^n))}{16b^2n^2+9} - \frac{4bnx^3\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{16b^2n^2+9} + \frac{36b^2n^2x^3\sin^2(a+b\log(cx^n))}{64b^4n^4+180b^2n^2+81} - \frac{24b^3n^3x^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{64b^4n^4+180b^2n^2+81} + \frac{8b^4n^4x^3}{64b^4n^4+180b^2n^2+81}$$

```
[In] Int[x^2*Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (8*b^4*n^4*x^3)/(81 + 180*b^2*n^2 + 64*b^4*n^4) - (24*b^3*n^3*x^3*Cos[a + b
*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(81 + 180*b^2*n^2 + 64*b^4*n^4) + (36*b
^2*n^2*x^3*Sin[a + b*Log[c*x^n]]^2)/(81 + 180*b^2*n^2 + 64*b^4*n^4) - (4*b*
n*x^3*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/(9 + 16*b^2*n^2) + (3*
x^3*Sin[a + b*Log[c*x^n]]^4)/(9 + 16*b^2*n^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rule 4575 ends after `NeQ[…, 0]`.

Rubi steps

$$\text{integral} = -\frac{4bnx^3\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{9+16b^2n^2} + \frac{3x^3\sin^4(a+b\log(cx^n))}{9+16b^2n^2} + \frac{(12b^2n^2)\int x^2\sin^2(a+b\log(cx^n))\,dx}{9+16b^2n^2}$$

$$= -\frac{24b^3n^3x^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} + \frac{36b^2n^2x^3\sin^2(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} - \frac{4bnx^3\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{9+16b^2n^2} + \frac{3x^3\sin^4(a+b\log(cx^n))}{9+16b^2n^2} + \frac{(24b^4n^4)\int x^2\,dx}{81+180b^2n^2+64b^4n^4}$$

$$= \frac{8b^4n^4x^3}{81+180b^2n^2+64b^4n^4} - \frac{24b^3n^3x^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} + \frac{36b^2n^2x^3\sin^2(a+b\log(cx^n))}{81+180b^2n^2+64b^4n^4} - \frac{4bnx^3\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{9+16b^2n^2} + \frac{3x^3\sin^4(a+b\log(cx^n))}{9+16b^2n^2}$$

Mathematica [A] (verified)

Time = 0.38 (sec) , antiderivative size = 171, normalized size of antiderivative = 0.85

$$\int x^2\sin^4(a+b\log(cx^n))\,dx = \frac{x^3(81+180b^2n^2+64b^4n^4-12(9+16b^2n^2)\cos(2(a+b\log(cx^n)))+3(9+4b^2n^2)\cos(4(a+b\log(cx^n)))}{8}$$

```
[In] Integrate[x^2*Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x^3*(81 + 180*b^2*n^2 + 64*b^4*n^4 - 12*(9 + 16*b^2*n^2)*Cos[2*(a + b*Log[
c*x^n])] + 3*(9 + 4*b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] - 72*b*n*Sin[2*(a +
b*Log[c*x^n])] - 128*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] + 36*b*n*Sin[4*(a +
b*Log[c*x^n])] + 16*b^3*n^3*Sin[4*(a + b*Log[c*x^n])]))/(8*(81 + 180*b^2*n^
2 + 64*b^4*n^4))
```

Maple [F]

$$\int x^2\sin(a+b\ln(c\,x^n))^4dx$$

```
[In] int(x^2*sin(a+b*ln(c*x^n))^4,x)
```

```
[Out] int(x^2*sin(a+b*ln(c*x^n))^4,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 178, normalized size of antiderivative = 0.88

$$\int x^2\sin^4(a+b\log(cx^n))\,dx = \frac{3\,(4\,b^2n^2+9)x^3\cos(bn\log(x)+b\log(c)+a)^4 - 6\,(10\,b^2n^2+9)x^3\cos(bn\log(x)+b\log(c)+a)^2 + (8\,b^4}{}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^4,x, algorithm="fricas")
```

```
[Out] (3*(4*b^2*n^2 + 9)*x^3*cos(b*n*log(x) + b*log(c) + a)^4 - 6*(10*b^2*n^2 + 9
)*x^3*cos(b*n*log(x) + b*log(c) + a)^2 + (8*b^4*n^4 + 48*b^2*n^2 + 27)*x^3
+ 4*((4*b^3*n^3 + 9*b*n)*x^3*cos(b*n*log(x) + b*log(c) + a)^3 - (10*b^3*n^3
 + 9*b*n)*x^3*cos(b*n*log(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a
))/(64*b^4*n^4 + 180*b^2*n^2 + 81)
```

Sympy [F(-1)]

Timed out.

$$\int x^2 \sin^4(a + b\log(cx^n))\, dx = \text{Timed out}$$

```
[In] integrate(x**2*sin(a+b*ln(c*x**n))**4,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1107 vs. $2(202) = 404$.

Time = 0.25 (sec) , antiderivative size = 1107, normalized size of antiderivative = 5.48

$$\int x^2 \sin^4(a + b\log(cx^n))\, dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^4,x, algorithm="maxima")
```

```
[Out] 1/16*((16*(b^3*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*
b*log(c)) + b^3*sin(4*b*log(c)))*n^3 + 12*(b^2*cos(8*b*log(c))*cos(4*b*log(
c)) + b^2*sin(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 36*(
b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*s
in(4*b*log(c)))*n + 27*cos(8*b*log(c))*cos(4*b*log(c)) + 27*sin(8*b*log(c))
*sin(4*b*log(c)) + 27*cos(4*b*log(c)))*x^3*cos(4*b*log(x^n) + 4*a) - 4*(32*
(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c))
+ b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c))
)*n^3 + 48*(b^2*cos(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2
*b*log(c)) + b^2*sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(
2*b*log(c)))*n^2 + 18*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c)
)*sin(4*b*log(c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*s
in(2*b*log(c)))*n + 27*cos(6*b*log(c))*cos(4*b*log(c)) + 27*cos(4*b*log(c))
*cos(2*b*log(c)) + 27*sin(6*b*log(c))*sin(4*b*log(c)) + 27*sin(4*b*log(c))*
sin(2*b*log(c)))*x^3*cos(2*b*log(x^n) + 2*a) + (16*(b^3*cos(8*b*log(c))*cos
(4*b*log(c)) + b^3*sin(8*b*log(c))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n
^3 - 12*(b^2*cos(4*b*log(c))*sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*
log(c)) + b^2*sin(4*b*log(c)))*n^2 + 36*(b*cos(8*b*log(c))*cos(4*b*log(c))
+ b*sin(8*b*log(c))*sin(4*b*log(c)) + b*cos(4*b*log(c)))*n - 27*cos(4*b*log
```

```
(c))*sin(8*b*log(c)) + 27*cos(8*b*log(c))*sin(4*b*log(c)) - 27*sin(4*b*log(
c)))*x^3*sin(4*b*log(x^n) + 4*a) - 4*(32*(b^3*cos(6*b*log(c))*cos(4*b*log(c
)) + b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(4*b*log(
c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3 - 48*(b^2*cos(4*b*log(c))*si
n(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4*b*log(c)) + b^2*cos(2*b*log(c))*s
in(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2 + 18*(b*cos(6*b*l
og(c))*cos(4*b*log(c)) + b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(
c))*sin(4*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n - 27*cos(4*b*log
(c))*sin(6*b*log(c)) + 27*cos(6*b*log(c))*sin(4*b*log(c)) - 27*cos(2*b*log(
c))*sin(4*b*log(c)) + 27*cos(4*b*log(c))*sin(2*b*log(c)))*x^3*sin(2*b*log(x
^n) + 2*a) + 2*(64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4 + 18
0*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + 81*cos(4*b*log(c))^
2 + 81*sin(4*b*log(c))^2)*x^3)/(64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log
(c))^2)*n^4 + 180*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + 81*
cos(4*b*log(c))^2 + 81*sin(4*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 17035 vs. 2(202) = 404.

Time = 1.30 (sec) , antiderivative size = 17035, normalized size of antiderivative = 84.33

$$\int x^2 \sin^4(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^4,x, algorithm="giac")
```

```
[Out] 1/8*x^3 + 1/16*(256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 32*b^3*n^3*x^3*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*
b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a)*tan(a)^2 + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x^3*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
- 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2*tan(a)^2 + 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
```

pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 192*b^2*n^2*x^3*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 192*b^
2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^
2*tan(a)^2 + 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x^3*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 256*b^3
*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 -
256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2
*a)^2 - 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2 - 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x^3*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)
 + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x^3*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))*tan(a)^2 + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 32*b^3*n^3*x^3*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x^3
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x^3*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n

+ 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*t
an(a)^2 + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^
3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x^3*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan
(a)^2 + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 12*b^2*n^2*x^3*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 19
2*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)^2 + 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2 + 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(2*a)^2 + 768*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 768*b^2*n^2*x^3*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 12*b^2*n^2*x
^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
- 192*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(a)^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(a)^2 - 48*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 48*b^2*n^2*x^3*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 +
12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 192*b^2*n^2*x^
3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(2*a)^2*tan(a)^2 + 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(
a)^2 - 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 192*b^2*n^2

*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) + 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 32*b

^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)
*tan(a)^2 + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
2*pi*b)*tan(2*a)*tan(a)^2 - 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 72*b*n*x^3*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 144*b*n
*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)
^2 + 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
2*a)^2*tan(a)^2 - 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*
b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 192*b^2*n^2*x
^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 192*b^2*n^2*x^3
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 12*b^2*n^2*x^3*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 48*b^2*n^2
*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
- 48*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a) + 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 192*b^2*
n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2
*a)^2 + 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 12*b^2*n^2*x^3
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(2*a)^2 + 192*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 +
192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2 + 768*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(a) + 768*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b

*log(abs(c)))*tan(a) + 768*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 768*b^
2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(a)^2 + 192*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 192*b^2*n^2*x^3*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^
2 + 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 192*b^2*n^2*x^3*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(a)^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 12*b^2*n^2*x^3*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(a)^2 - 48*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan
(a)^2 - 48*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - 12*b^2*n^
2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*ta
n(a)^2 + 192*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*a)^2*tan(a)^2 + 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*a)^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 27*x^3*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 108*x^3
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
 - 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 + 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) + 32*b
^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c))) - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*n^3
*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c))) + 32*b^3*n^3*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*a) + 32*b^3*n^3*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*a) - 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) +
 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))

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)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 144*b*n*x^3*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 144*b*n*x^3*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 72*b*n*x^3*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 72*b
*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)^2 - 256*b^3*n^3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
a) - 256*b^3*n^3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a
) + 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
a) + 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(a) - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 144*b*n*x^3*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a) + 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 14
4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 144*b*n*x^3*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 144*b*n*x^3*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 72*b*n*x^3*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 72*b*n*x^3*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 72*b*n*x^3*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) +
 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(2*a)*tan(a)^2 + 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*s
gn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 +
72*b*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 72*b*n*x^3*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))*tan(2*a)^2*tan(a)^2 - 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^
2*tan(a)^2 + 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 144*b*n*x^3*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(2*a)^2*tan(a)^2 - 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 192*b^2
```

*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 12*b^2*n^2*x^
3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2 + 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 192*b^2*n
^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2 + 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 12*b^2*n^2*x^3*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2 - 48*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - 48*b^2*n^2*x
^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))*tan(2*a) - 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 192*b^2*n^2*x^3*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 192*b^2*n^2*x^3*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 - 12*b^2*n^2*x^3*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 27*x^3*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 108*x^
3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 108*x
^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 27*
x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2 + 768*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 768*b^2*n^2*x^3*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)
+ 432*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*t
an(a) + 432*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2
*a)^2*tan(a) + 12*b^2*n^2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(a)^2 + 192*b^2*n^2*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(a)^2 + 192*b^2*n^2*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(a)^2 + 12*b^2*n^2*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(a)^2 - 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a)^2 - 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a)^2 - 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a)^2 - 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n

*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 108*x^3*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 108*x^3*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 27*
x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 108*x^3*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 + 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 27*x^3*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 27*x^3*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 - 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 108*x^3*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 - 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a
)^2 - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 14
4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) + 72*b*n*x^
3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 72*b*n*x^3
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 72*b*n*x^3
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a) - 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a) + 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 72*b*n*x^3*e^(-2*pi*b*n*s
gn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a) - 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 72*b*n*x^3*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 144*
b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(2*a)^2 - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 144*b*
n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(a) + 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 144*b*n*x^
3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(a) - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)

- pi*b)*tan(2*a)^2*tan(a) - 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(2*a)^2*tan(a) + 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^
2 + 72*b*n*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 144*b*n*x^3*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
a)^2 + 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 + 72*b*n*x^3*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 12*b^2*n^
2*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 192*b^2*n^2
*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 192*b^2*n^2*x^3*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) + 12*b^2*n^2*x^3*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 27*x^3*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 108*x^3*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2 + 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2 - 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2 - 108*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a) - 108*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a) + 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
- 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
+ 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 27*x^3*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 108*x^3*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^
2 - 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 432*x^3*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(a) + 432*x^3*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(a) + 432*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 4
32*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))*tan(2*a)^2*tan(a) - 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n

+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)
^2 + 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 -
 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 27*x^3*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
a)^2 - 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 27*x^
3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(a)^2 - 108*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*ta
n(a)^2 - 108*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - 27*x^3*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 108*x
^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 10
8*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2
- 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^
2*tan(a)^2 + 72*b*n*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) + 72*b*n*x^3*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c))) - 144*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c))) - 144*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) + 72*b*n*x^3*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) + 72*b*n*x^3*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) - 144*b*n*x^
3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 144*b*n*x^3*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) - 27*x^3*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2 - 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 27*x^3*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2 + 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 108*x^3*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 +
108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2 + 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 108*x^3*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))*tan(2*a) - 108*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - 27*x^3*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 108*x^3*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 108*x^3*e^(-pi*b*n*

sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 - 27*x^3*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 432*x^3*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
a) + 432*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(a) + 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(a)^2 + 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(a)^2 + 108*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(a)^2 + 27*x^3*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(a)^2 + 27*x^3*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b) - 108*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 108*x^3*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) + 27*x^3*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b))/(64*b^4*n^4*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)
^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^
4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 +
64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(2*a)^2*tan(a)^2 + 180
*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b
^4*n^4*tan(2*a)^2 + 180*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(a)^2 + 1
80*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(a)^2 + 180*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 + 180*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4 + 180*b^2*n^2*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 180*b^2*n^2*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 180*b^2*n^2*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 180*b^2*n^2*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 180*b^2*n^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(a)^2 + 180*b^2*n^2*tan(2*a)^2*tan(a)^2 + 81*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 + 180*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 180*
b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 180*b^2*n^2*tan(2*a)^2 + 8
1*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2 + 180*b^2*n^2*tan(a)^2 + 81*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 81*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 81*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 180*b^2*n^2 + 81*tan(2*b*n*

```
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8
1*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 81*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 81*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(a)^2 + 81*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 81
*tan(2*a)^2*tan(a)^2 + 81*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 81*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2 + 81*tan(2*a)^2 + 81*tan(a)^2 + 81)
```

Mupad [B] (verification not implemented)

Time = 27.24 (sec) , antiderivative size = 127, normalized size of antiderivative = 0.63

$$\int x^2 \sin^4(a+b\log(cx^n))\,dx = \frac{x^3}{8} - \frac{x^3\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+12\mathrm{i}} - \frac{x^3\,\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}}{12+b\,n\,8\mathrm{i}} + \frac{x^3\,\mathrm{e}^{-a\,4\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,4\mathrm{i}}}\,1\mathrm{i}}{64\,b\,n+48\mathrm{i}} + \frac{x^3\,\mathrm{e}^{a\,4\mathrm{i}}\,(c\,x^n)^{b\,4\mathrm{i}}}{48+b\,n\,64\mathrm{i}}$$

```
[In] int(x^2*sin(a + b*log(c*x^n))^4,x)
```

```
[Out] x^3/8 - (x^3*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 12i) - (x^3*exp(a*2i)*(
c*x^n)^(b*2i))/(b*n*8i + 12) + (x^3*exp(-a*4i)/(c*x^n)^(b*4i)*1i)/(64*b*n +
 48i) + (x^3*exp(a*4i)*(c*x^n)^(b*4i))/(b*n*64i + 48)
```

3.20 $\int x \sin^4(a+b\log(cx^n))\,dx$

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Optimal result

Integrand size = 15, antiderivative size = 210

$$\int x\sin^4(a+b\log(cx^n))\,dx = \frac{3b^4n^4x^2}{4(1+5b^2n^2+4b^4n^4)} - \frac{3b^3n^3x^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} + \frac{3b^2n^2x^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} - \frac{bnx^2\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+4b^2n^2} + \frac{x^2\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)}$$

```
[Out] 3/4*b^4*n^4*x^2/(4*b^4*n^4+5*b^2*n^2+1)-3/2*b^3*n^3*x^2*cos(a+b*ln(c*x^n))*
sin(a+b*ln(c*x^n))/(4*b^4*n^4+5*b^2*n^2+1)+3/2*b^2*n^2*x^2*sin(a+b*ln(c*x^n
))^2/(4*b^4*n^4+5*b^2*n^2+1)-b*n*x^2*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))^
3/(4*b^2*n^2+1)+1/2*x^2*sin(a+b*ln(c*x^n))^4/(4*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 210, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.133$, Rules used

$= \{4575, 30\}$

$$\int x\sin^4(a+b\log(cx^n))\,dx = \frac{x^2\sin^4(a+b\log(cx^n))}{2(4b^2n^2+1)} - \frac{bnx^2\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+1} + \frac{3b^2n^2x^2\sin^2(a+b\log(cx^n))}{2(4b^4n^4+5b^2n^2+1)} - \frac{3b^3n^3x^2\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2(4b^4n^4+5b^2n^2+1)} + \frac{3b^4n^4x^2}{4(4b^4n^4+5b^2n^2+1)}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (3*b^4*n^4*x^2)/(4*(1 + 5*b^2*n^2 + 4*b^4*n^4)) - (3*b^3*n^3*x^2*Cos[a + b*
Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(2*(1 + 5*b^2*n^2 + 4*b^4*n^4)) + (3*b^2
*n^2*x^2*Sin[a + b*Log[c*x^n]]^2)/(2*(1 + 5*b^2*n^2 + 4*b^4*n^4)) - (b*n*x^
2*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/(1 + 4*b^2*n^2) + (x^2*Sin
[a + b*Log[c*x^n]]^4)/(2*(1 + 4*b^2*n^2))
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bnx^2\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+4b^2n^2} + \frac{x^2\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)} + \frac{(3b^2n^2)\int x\sin^2(a+b\log(cx^n))\,dx}{1+4b^2n^2}$$

$$= -\frac{3b^3n^3x^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} + \frac{3b^2n^2x^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} - \frac{bnx^2\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+4b^2n^2} + \frac{x^2\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)} + \frac{(3b^4n^4)\int x\,dx}{2(1+5b^2n^2+4b^4n^4)}$$

$$= \frac{3b^4n^4x^2}{4(1+5b^2n^2+4b^4n^4)} - \frac{3b^3n^3x^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} + \frac{3b^2n^2x^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)} - \frac{bnx^2\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+4b^2n^2} + \frac{x^2\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)}$$

Mathematica [A] (verified)

Time = 0.35 (sec) , antiderivative size = 169, normalized size of antiderivative = 0.80

$$\int x\sin^4(a+b\log(cx^n))\,dx = \frac{x^2(3+15b^2n^2+12b^4n^4-4(1+4b^2n^2)\cos(2(a+b\log(cx^n)))+(1+b^2n^2)\cos(4(a+b\log(cx^n)))-4bn\,\mathrm{s}}{16(1+}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x^2*(3 + 15*b^2*n^2 + 12*b^4*n^4 - 4*(1 + 4*b^2*n^2)*Cos[2*(a + b*Log[c*x^
n])] + (1 + b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] - 4*b*n*Sin[2*(a + b*Log[c*x
^n])] - 16*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] + 2*b*n*Sin[4*(a + b*Log[c*x^n
])] + 2*b^3*n^3*Sin[4*(a + b*Log[c*x^n])]))/(16*(1 + 5*b^2*n^2 + 4*b^4*n^4)
)
```

Maple [F]

$$\int x\sin(a+b\ln(cx^n))^4dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^4,x)
```

```
[Out] int(x*sin(a+b*ln(c*x^n))^4,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 177, normalized size of antiderivative = 0.84

$$\int x\sin^4\left(a+b\log\left(cx^n\right)\right)\,dx = \frac{2\,(b^2n^2+1)x^2\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^4-2\,(5\,b^2n^2+2)x^2\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^2+(3\,b^4n^4}{}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^4,x, algorithm="fricas")
```

```
[Out] 1/4*(2*(b^2*n^2 + 1)*x^2*cos(b*n*log(x) + b*log(c) + a)^4 - 2*(5*b^2*n^2 +
2)*x^2*cos(b*n*log(x) + b*log(c) + a)^2 + (3*b^4*n^4 + 8*b^2*n^2 + 2)*x^2 +
 2*(2*(b^3*n^3 + b*n)*x^2*cos(b*n*log(x) + b*log(c) + a)^3 - (5*b^3*n^3 + 2
*b*n)*x^2*cos(b*n*log(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a))/(
4*b^4*n^4 + 5*b^2*n^2 + 1)
```

Sympy [F(-1)]

Timed out.

$$\int x\sin^4\left(a+b\log\left(cx^n\right)\right)\,dx = \text{Timed out}$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**4,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1085 vs. 2(202) = 404.

Time = 0.27 (sec) , antiderivative size = 1085, normalized size of antiderivative = 5.17

$$\int x\sin^4\left(a+b\log\left(cx^n\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^4,x, algorithm="maxima")
```

```
[Out] 1/32*((2*(b^3*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*b
*log(c)) + b^3*sin(4*b*log(c)))*n^3 + (b^2*cos(8*b*log(c))*cos(4*b*log(c))
+ b^2*sin(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 2*(b*cos
(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin(4*
b*log(c)))*n + cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*lo
g(c)) + cos(4*b*log(c)))*x^2*cos(4*b*log(x^n) + 4*a) - 4*(4*(b^3*cos(4*b*lo
```

```
g(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b*l
og(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3 + 4*(b^2*
cos(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2
*sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2
 + (b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)) +
 b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n +
 cos(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + sin(6*
b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x^2*cos(2*b*lo
g(x^n) + 2*a) + (2*(b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*log(c
))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n^3 - (b^2*cos(4*b*log(c))*sin(8*
b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c)))*n^2
+ 2*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c))
+ b*cos(4*b*log(c)))*n - cos(4*b*log(c))*sin(8*b*log(c)) + cos(8*b*log(c))*
sin(4*b*log(c)) - sin(4*b*log(c)))*x^2*sin(4*b*log(x^n) + 4*a) - 4*(4*(b^3*
cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3
*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3
 - 4*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4*b*log
(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*lo
g(c)))*n^2 + (b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*log(c))*cos(2*b
*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*lo
g(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*b*log(c)
) - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*log(c)))*x^2*
sin(2*b*log(x^n) + 2*a) + 6*(4*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))
^2)*n^4 + 5*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + cos(4*b*l
og(c))^2 + sin(4*b*log(c))^2)*x^2)/(4*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*
log(c))^2)*n^4 + 5*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + co
s(4*b*log(c))^2 + sin(4*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 16984 vs. $2(202) = 404$.

Time = 1.08 (sec) , antiderivative size = 16984, normalized size of antiderivative = 80.88

$$\int x \sin^4(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^4,x, algorithm="giac")
```

```
[Out] 3/16*x^2 + 1/32*(32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 4*b^3*n^3*x^2*e^(2*pi*b*n*s
gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b^3
```

*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(2*a)*tan(a)^2 + 32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 4*b^3*n^3*x^2*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^
3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2*tan(a)^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b^2*n^2*x^2*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 +
 b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(2*a)^2*tan(a)^2 - 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a) - 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x^2*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 32*b^3*n^3*x^2*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 4*b^3*n^3*x
^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2
- 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2 + 32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(a) + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a) - 32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) -
 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x^2*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 32
*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(

abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2
+ 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
a)^2 + 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(a)^2 + 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(a)^2 - 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a
)*tan(a)^2 - 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*b
^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*b^3*n^3*x^2*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)
^2*tan(a)^2 - 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32
*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
2*a)^2*tan(a)^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)^2 + 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + b^2*n^2*x^2*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x^
2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) +
64*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*
a)^2*tan(a) - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 - 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(a)^2 - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(a)^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x^2*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b^2

*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)*tan(a)^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 1
6*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 16*b^2*n^2*x^2*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 + b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b^2
*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)^2*tan(a)^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 32
*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 32*b^3*
n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) + 4*b^3*n^3*x
^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^3*n^3
*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*b^3*
n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(2*a) + 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*b^3*n^3*x^
2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a) - 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2
*a)^2 - 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 32*b^3*n^3*x^2*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(2*a)^2 - 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 32*b^3*n^3*x^2*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(a) - 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 32*b^3*n^
3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(a) + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 32*b^3*n^3*
x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 32*
b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan

(a) + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)^2*tan(a) + 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2*tan(a) + 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 4
*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 32*b^3*n^3*x^2*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(a)^2 + 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 + 4*b^3*n^3*x^2*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 -
 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)*tan(a)^2 - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 8*b*n*x^2*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 4*b*n*x^2*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
 - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2 + 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2 + 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2 - 4*b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*s
gn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(2*a) - 4*b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(2*a)^2 - 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 16*b^2*n^2*x^
2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)^2 + b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*

```
a)^2 - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*b^2*n^2*x^2*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2 + 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - b^2*n^2*x^2*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a) + 64*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))*tan(a) + 64*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a
) + 64*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - b^2*n^2*x^2*e^(2*pi*b*n*s
gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(a)^2 + 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 16*b^2*n^2*
x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(a)^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)
^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*b^2*n^2*x^2*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(a)^2 - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + b^2*n^2*x^2*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(a)^2 - 4*b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 -
4*b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - b^2*n^2*x^2*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 16*
b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(
a)^2 + 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*a)^2*tan(a)^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x^2*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x^2*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + x^2*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)
^2 + 4*b^3*n^3*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) + 4*b^3*n^3*x^2*e^(-2*pi*b*n*sgn(x
```

```
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c))) - 32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c))) - 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) + 4*b^3*n^3*x^2
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) + 4*b^3*n
^3*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) -
4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(2*a) - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a) - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))*tan(2*a)^2 - 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(2*a)^2 - 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)^2 - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 32*b^3*n^3*x^2*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 32*b^3*n^3*x^2*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(a) + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a) + 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a) - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan
(a) - 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 8*b*n*x^2*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)^2*tan(a) + 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 8*b*n*x^2*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 8*b*n*x^2*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 4*b*n*x^2*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b*n*
x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
- 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b*n*x^2*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
 + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*
tan(a)^2 + 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
```

b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b*n*x^2*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*t
an(2*a)^2*tan(a)^2 + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 8*b*n*x^2*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(2*a)^2*tan(a)^2 - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 16*b^2
*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2 - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - b^2*n^2*x^2*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b
*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 16*b^2*n^2*x^2*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2 + 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
 - 4*b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - 4*b^2*n^2*x^2*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(2*a) - b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*s
gn(c) - 2*pi*b)*tan(2*a)^2 - 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*a)^2 - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*a)^2 - b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x^2*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*t
an(a) + 64*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x^2*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x^2*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + b^2*n^2*x^2*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 16*b^2*n^2*x^2*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 16*b^2*n^2*x^2*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 + b^2*n^2*x^2*e^(-2*

pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - x^2*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x^2*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x^2*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x^2*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x^2*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 -
4*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)*tan(a)^2 + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x^2*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
+ x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - x^2*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2*tan(a)^2 - 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x^2*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 - x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
- 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 8*b*n*x
^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) + 4*b*n*x^2*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b*n*x^2*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*b*n*x^2*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(2*a) - 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 4*b
*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*
b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a) - 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 4*b*n*x^2*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))*tan(2*a)^2 - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 8*b*n*x^2*e^(-pi*b*n*

sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(2*a)^2 - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 8*b*n*x^2*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(a) + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(a) + 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 8*b
*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) -
8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a
) + 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 4*b*n*x^2*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(a)^2 + 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 8*b*n*x^2*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^
2 + 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*a)*tan(a)^2 + 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(2*a)*tan(a)^2 + b^2*n^2*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b) - 16*b^2*n^2*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b) - 16*b^2*n^2*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
 + b^2*n^2*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - x
^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x^2*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x^2*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - x^2*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
 + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 4*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + x^2*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(2*a)^2 - 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*x^2*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
2*a)^2 + x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - x^2*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 -
 x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*x^2*e^(pi*b*n*sgn(x) - pi*b*n + p

i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(a) + 16*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(a) + 16*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x^2*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(2*a)^2*tan(a) - x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*x^2*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(a)^2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - x^2*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(a)^2 + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x^2*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(a)^2 - 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^
2 - 4*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - 4*x^2*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(2*a)*tan(a)^2 - x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*a)^2*tan(a)^2 - x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*b*n*x^2*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
+ 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c))) - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 8*b*n*x^2*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c))) + 4*b*n*x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*a) + 4*b*n*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*a) - 8*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
a) - 8*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) - x^
2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2 - 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x^2*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
- x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2 + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b
*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x^2*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2 + x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)

```
 + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*x^2*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(2*a) - 4*x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - x^2*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 4*x^2*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 4*x^2*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 - x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 16*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x^2*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))*tan(a) + x^2*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(a)^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2
 + 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 + x^2*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 + x^2*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 4*x^2*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b) - 4*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b) + x^2*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
)/(4*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^4*n^4*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*b
^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 + 4*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(2*a)^2*tan(a)^2 + 4*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 + 4*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^4*n^4*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2 + 4*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(2*a)^2 + 4*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
a)^2 + 4*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^4*n^
4*tan(2*a)^2*tan(a)^2 + 5*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^4*n^4*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*b^4*n^4*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2 + 4*b^4*n^4*tan(2*a)^2 + 5*b^2*n^2*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*b
^4*n^4*tan(a)^2 + 5*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 5*b^2*n^2*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 5*b^2*n^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^4*n^4 + 5*b^2*n^2*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*
b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 5*b^2*n^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 5*b^2*n^2*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 5*b^2*n^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 + 5*b^2*n^2*tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*
tan(a)^2 + 5*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 5*b^2*n^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*b^2*n^2*tan(2*a)^2 + tan(2*b*n*
```

```
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2 + 5*b^2*n^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2*tan(a)^2 + 5*b^2*n^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(2*a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^
2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2*a)^
2 + tan(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.09 (sec) , antiderivative size = 127, normalized size of antiderivative = 0.60

$$\int x\sin^4(a+b\log(cx^n))\,dx = \frac{3\,x^2}{16}-\frac{x^2\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+8\mathrm{i}}-\frac{x^2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{8+b\,n\,8\mathrm{i}}+\frac{x^2\,\mathrm{e}^{-a\,4\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}\,1\mathrm{i}}{64\,b\,n+32\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}{32+b\,n\,64\mathrm{i}}$$

```
[In] int(x*sin(a + b*log(c*x^n))^4,x)
```

```
[Out] (3*x^2)/16 - (x^2*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 8i) - (x^2*exp(a*2
i)*(c*x^n)^(b*2i))/(b*n*8i + 8) + (x^2*exp(-a*4i)/(c*x^n)^(b*4i)*1i)/(64*b*
n + 32i) + (x^2*exp(a*4i)*(c*x^n)^(b*4i))/(b*n*64i + 32)
```

3.21 $\int \sin^4(a + b\log(cx^n))\,dx$

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Optimal result

Integrand size = 13, antiderivative size = 191

$$\int \sin^4(a+b\log(cx^n))\,dx = \frac{24b^4n^4x}{1+20b^2n^2+64b^4n^4} - \frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} + \frac{12b^2n^2x\sin^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} - \frac{4bnx\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+16b^2n^2} + \frac{x\sin^4(a+b\log(cx^n))}{1+16b^2n^2}$$

```
[Out] 24*b^4*n^4*x/(64*b^4*n^4+20*b^2*n^2+1)-24*b^3*n^3*x*cos(a+b*ln(c*x^n))*sin(
a+b*ln(c*x^n))/(64*b^4*n^4+20*b^2*n^2+1)+12*b^2*n^2*x*sin(a+b*ln(c*x^n))^2/
(64*b^4*n^4+20*b^2*n^2+1)-4*b*n*x*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))^3/(
16*b^2*n^2+1)+x*sin(a+b*ln(c*x^n))^4/(16*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 191, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.154$, Rules used

$= \{4565, 8\}$

$$\int \sin^4(a+b\log(cx^n))\,dx = \frac{x\sin^4(a+b\log(cx^n))}{16b^2n^2+1} - \frac{4bnx\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{16b^2n^2+1} + \frac{12b^2n^2x\sin^2(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} - \frac{24b^3n^3x\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} + \frac{24b^4n^4x}{64b^4n^4+20b^2n^2+1}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (24*b^4*n^4*x)/(1 + 20*b^2*n^2 + 64*b^4*n^4) - (24*b^3*n^3*x*Cos[a + b*Log[
c*x^n]]*Sin[a + b*Log[c*x^n]])/(1 + 20*b^2*n^2 + 64*b^4*n^4) + (12*b^2*n^2*
x*Sin[a + b*Log[c*x^n]]^2)/(1 + 20*b^2*n^2 + 64*b^4*n^4) - (4*b*n*x*Cos[a +
 b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/(1 + 16*b^2*n^2) + (x*Sin[a + b*Log
[c*x^n]]^4)/(1 + 16*b^2*n^2)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 4565

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Sin[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Sin[d*(a + b*Log[c*x^n])]^(p -
2), x], x] - Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log[c*x
^n])]^(p - 1)/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{4bnx\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+16b^2n^2} + \frac{x\sin^4(a+b\log(cx^n))}{1+16b^2n^2} + \frac{(12b^2n^2)\int \sin^2(a+b\log(cx^n))\,dx}{1+16b^2n^2}\\ &= -\frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} + \frac{12b^2n^2x\sin^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} - \frac{4bnx\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+16b^2n^2} + \frac{x\sin^4(a+b\log(cx^n))}{1+16b^2n^2} + \frac{(24b^4n^4)\int 1\,dx}{1+20b^2n^2+64b^4n^4}\end{aligned}$$

$$= \frac{24b^4n^4x}{1+20b^2n^2+64b^4n^4} - \frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} + \frac{12b^2n^2x\sin^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} - \frac{4bnx\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{1+16b^2n^2} + \frac{x\sin^4(a+b\log(cx^n))}{1+16b^2n^2}$$

Mathematica [A] (verified)

Time = 0.30 (sec) , antiderivative size = 168, normalized size of antiderivative = 0.88

$$\int \sin^4(a+b\log(cx^n))\,dx = \frac{x(3+60b^2n^2+192b^4n^4-4(1+16b^2n^2)\cos(2(a+b\log(cx^n)))+(1+4b^2n^2)\cos(4(a+b\log(cx^n)))-8}{8(1}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x*(3 + 60*b^2*n^2 + 192*b^4*n^4 - 4*(1 + 16*b^2*n^2)*Cos[2*(a + b*Log[c*x^
n])] + (1 + 4*b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] - 8*b*n*Sin[2*(a + b*Log[c
*x^n])] - 128*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] + 4*b*n*Sin[4*(a + b*Log[c*
x^n])] + 16*b^3*n^3*Sin[4*(a + b*Log[c*x^n])]))/(8*(1 + 20*b^2*n^2 + 64*b^4
*n^4))
```

Maple [A] (verified)

Time = 4.41 (sec) , antiderivative size = 184, normalized size of antiderivative = 0.96

method	result
parallelrisch	$\frac{x(4(-16b^2n^2-1)\cos(2b\ln(cx^n)+2a)+192b^4n^4-128b^3n^3\sin(2b\ln(cx^n)+2a)+16b^3n^3\sin(4b\ln(cx^n)+4a)+4b^2n^2\cos(4b\ln(c}{512b^4n^4+160b^2n^2+8}$
default	$\frac{3x}{8} - \frac{e^{\frac{\ln(cx^n)}{n}-\frac{\ln(c)}{n}}\cos(2b\ln(cx^n)+2a)}{2n^2\left(\frac{1}{n^2}+4b^2\right)} - \frac{b\,e^{\frac{\ln(cx^n)}{n}-\frac{\ln(c)}{n}}\sin(2b\ln(cx^n)+2a)}{n\left(\frac{1}{n^2}+4b^2\right)} + \frac{e^{\frac{\ln(cx^n)}{n}-\frac{\ln(c)}{n}}\cos(4b\ln(cx^n)+4a)}{8n^2\left(\frac{1}{n^2}+16b^2\right)}$

```
[In] int(sin(a+b*ln(c*x^n))^4,x,method=_RETURNVERBOSE)
```

```
[Out] 1/8*x*(4*(-16*b^2*n^2-1)*cos(2*b*ln(c*x^n)+2*a)+192*b^4*n^4-128*b^3*n^3*sin
(2*b*ln(c*x^n)+2*a)+16*b^3*n^3*sin(4*b*ln(c*x^n)+4*a)+4*b^2*n^2*cos(4*b*ln(
c*x^n)+4*a)+60*b^2*n^2-8*b*n*sin(2*b*ln(c*x^n)+2*a)+4*b*n*sin(4*b*ln(c*x^n)
+4*a)+cos(4*b*ln(c*x^n)+4*a)+3)/(64*b^4*n^4+20*b^2*n^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 165, normalized size of antiderivative = 0.86

$$\int \sin^4(a+b\log(cx^n))\,dx$$
$$= \frac{(4b^2n^2+1)x\cos(bn\log(x)+b\log(c)+a)^4 - 2(10b^2n^2+1)x\cos(bn\log(x)+b\log(c)+a)^2 + (24b^4n^4+\cdots}{\cdots}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4,x, algorithm="fricas")
```

```
[Out] ((4*b^2*n^2 + 1)*x*cos(b*n*log(x) + b*log(c) + a)^4 - 2*(10*b^2*n^2 + 1)*x*
cos(b*n*log(x) + b*log(c) + a)^2 + (24*b^4*n^4 + 16*b^2*n^2 + 1)*x + 4*((4*
b^3*n^3 + b*n)*x*cos(b*n*log(x) + b*log(c) + a)^3 - (10*b^3*n^3 + b*n)*x*co
s(b*n*log(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a))/(64*b^4*n^4 +
 20*b^2*n^2 + 1)
```

Sympy [F]

$$\int \sin^4(a+b\log(cx^n))\,dx$$
$$= \begin{cases} \int \sin^4\left(a-\frac{i\log(cx^n)}{2n}\right)dx \\ \int \sin^4\left(a-\frac{i\log(cx^n)}{4n}\right)dx \\ \int \sin^4\left(a+\frac{i\log(cx^n)}{4n}\right)dx \\ \int \sin^4\left(a+\frac{i\log(cx^n)}{2n}\right)dx \\ \frac{24b^4n^4x\sin^4(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} + \frac{48b^4n^4x\sin^2(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} + \frac{24b^4n^4x\cos^4(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} - \frac{40b^3n^3x\sin^3(a+b\log(\cdots}{64b^4n^4+\cdots} \end{cases}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**4,x)
```

```
[Out] Piecewise((Integral(sin(a - I*log(c*x**n)/(2*n))**4, x), Eq(b, -I/(2*n))),
(Integral(sin(a - I*log(c*x**n)/(4*n))**4, x), Eq(b, -I/(4*n))), (Integral(
sin(a + I*log(c*x**n)/(4*n))**4, x), Eq(b, I/(4*n))), (Integral(sin(a + I*l
og(c*x**n)/(2*n))**4, x), Eq(b, I/(2*n))), (24*b**4*n**4*x*sin(a + b*log(c*
x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 48*b**4*n**4*x*sin(a + b*log(
c*x**n))**2*cos(a + b*log(c*x**n))**2/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 2
4*b**4*n**4*x*cos(a + b*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 + 1) -
 40*b**3*n**3*x*sin(a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(64*b**4*n
**4 + 20*b**2*n**2 + 1) - 24*b**3*n**3*x*sin(a + b*log(c*x**n))*cos(a + b*l
```

```
og(c*x**n))**3/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 16*b**2*n**2*x*sin(a + b
*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 12*b**2*n**2*x*sin(a +
 b*log(c*x**n))**2*cos(a + b*log(c*x**n))**2/(64*b**4*n**4 + 20*b**2*n**2 +
 1) - 4*b*n*x*sin(a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(64*b**4*n**
4 + 20*b**2*n**2 + 1) + x*sin(a + b*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2
*n**2 + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1078 vs. $2(191) = 382$.

Time = 0.25 (sec) , antiderivative size = 1078, normalized size of antiderivative = 5.64

$$\int \sin^4(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4,x, algorithm="maxima")
```

```
[Out] 1/16*((16*(b^3*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*
b*log(c)) + b^3*sin(4*b*log(c)))*n^3 + 4*(b^2*cos(8*b*log(c))*cos(4*b*log(c
)) + b^2*sin(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 4*(b*
cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin
(4*b*log(c)))*n + cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b
*log(c)) + cos(4*b*log(c)))*x*cos(4*b*log(x^n) + 4*a) - 4*(32*(b^3*cos(4*b*
log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b
*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3 + 16*(b
^2*cos(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) +
b^2*sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*
n^2 + 2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(
c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c))
)*n + cos(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + s
in(6*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b
*log(x^n) + 2*a) + (16*(b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*l
og(c))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n^3 - 4*(b^2*cos(4*b*log(c))*
sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))
)*n^2 + 4*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*lo
g(c)) + b*cos(4*b*log(c)))*n - cos(4*b*log(c))*sin(8*b*log(c)) + cos(8*b*lo
g(c))*sin(4*b*log(c)) - sin(4*b*log(c)))*x*sin(4*b*log(x^n) + 4*a) - 4*(32*
(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c))
+ b^3*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c))
)*n^3 - 16*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4
*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(
2*b*log(c)))*n^2 + 2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*log(c))
*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c))*si
n(2*b*log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*
b*log(c)) - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*log(c
```

```
)))*x*sin(2*b*log(x^n) + 2*a) + 6*(64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*
log(c))^2)*n^4 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + c
os(4*b*log(c))^2 + sin(4*b*log(c))^2)*x)/(64*(b^4*cos(4*b*log(c))^2 + b^4*s
in(4*b*log(c))^2)*n^4 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*
n^2 + cos(4*b*log(c))^2 + sin(4*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 16422 vs. $2(191) = 382$.

Time = 0.73 (sec) , antiderivative size = 16422, normalized size of antiderivative = 85.98

$$\int \sin^4(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4,x, algorithm="giac")
```

```
[Out] 3/8*x + 1/16*(256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*
x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*
tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan
(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*ta
n(a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
```

bs(c)))^2*tan(2*a) - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a) - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 32*b^3*n^3*x*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 256*b
^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 25
6*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 2
56*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 32*b^3*n^3*x*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 32*b^3*n^3*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 3
2*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)*tan(a)^2 + 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b
^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(
a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*

log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n
^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64
*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2 + 256*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 -
16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 6
4*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c))) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
+ 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t

```
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 32*
b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)*tan(2*a)^2 - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 256*b^3
*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 256*
b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a
) + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 32*b^3
*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 +
 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 - 8*b*n*x*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(
a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)*tan(a)^2 + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
```

n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 256*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) +

pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^
2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*b^2*n^2*x*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*ta
n(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + x*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 -
4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(
a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) + 32*b^3*n^3*x*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c))) - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) + 32
*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)
 + 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(2*a) - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(2*a) - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(2*a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(2*a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)

) + b*log(abs(c)))^2*tan(a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) -
16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b*n*x*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*n*x*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)*tan(a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*
a)^2*tan(a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2
- 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b
^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*b^2*n^
2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
*tan(2*a) - 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - 4*b^2*n^2*x*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 64*b^2*n^2
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 64*b^2*n^2*

x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 - 4*b^2*n^2*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + x*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + x*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 25
6*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 4*b
^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 +
 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 64
*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 + 4*b^
2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 -
 x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
- 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)
^2 - 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)*tan(a)^2 + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - x*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2*tan(a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2*tan(a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*

b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b*n*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 16*b*n*x*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c))) + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a
) - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 8*b*n*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a) + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 8*b*n*x*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(2*a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(2*a)^2 - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)
^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 16*b*n*x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2
+ 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 64*b^2*n^2*x*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b) - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b) + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b) - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*
x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +

2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - x*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*x*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 4*x*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(2*a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*x*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - x*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)^2 + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a) + 16*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(a) + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a
)^2*tan(a) - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*x*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a
)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 +
 x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*t
an(2*a)*tan(a)^2 - 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - x*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 - x*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 +
 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*

```
log(abs(x)) + 2*b*log(abs(c))) + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 16*b*n*x*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c))) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c))) + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*a) + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(a) - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*x*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(2*a) - 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 4*x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 4*x*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*a)^2 + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a
) + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 4*
x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 4*x*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b) - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b) - 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) + x*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b))/(64*b^4*n^4*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 +
64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 +
 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64
*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64
*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*t
```

```
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(2*a)^2*tan(
a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2 + 64*b^4*n^4*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(
a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4 + 20*b^2*n^2*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*n
^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*n^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*t
an(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 20*b^2*n^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*n^2*tan(2*a)^2 + tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 20*b^2*n^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2 + tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2
*a)^2 + tan(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 28.64 (sec) , antiderivative size = 117, normalized size of antiderivative = 0.61

$$\int \sin^4(a+b\log(cx^n))\,dx = \frac{3\,x}{8}-\frac{x\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+4\mathrm{i}}-\frac{x\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{4+b\,n\,8\mathrm{i}}+\frac{x\,\mathrm{e}^{-a\,4\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}\,1\mathrm{i}}{64\,b\,n+16\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}{16+b\,n\,64\mathrm{i}}$$

```
[In] int(sin(a + b*log(c*x^n))^4,x)
```

```
[Out] (3*x)/8 - (x*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 4i) - (x*exp(a*2i)*(c*x
^n)^(b*2i))/(b*n*8i + 4) + (x*exp(-a*4i)/(c*x^n)^(b*4i)*1i)/(64*b*n + 16i)
+ (x*exp(a*4i)*(c*x^n)^(b*4i))/(b*n*64i + 16)
```

3.22 $\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx$

Optimal result 294
Rubi [A] (verified) 294
Mathematica [A] (verified) 295
Maple [A] (verified) 296
Fricas [A] (verification not implemented) 296
Sympy [A] (verification not implemented) 296
Maxima [A] (verification not implemented) 297
Giac [F] 297
Mupad [B] (verification not implemented) 297

Optimal result

Integrand size = 17, antiderivative size = 73

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = \frac{3\log(x)}{8} - \frac{3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{8bn} - \frac{\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{4bn}$$

```
[Out] 3/8*ln(x)-3/8*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/b/n-1/4*cos(a+b*ln(c*x^
n))*sin(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 73, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {2715, 8}

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = -\frac{\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4bn} - \frac{3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{8bn} + \frac{3\log(x)}{8}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^4/x,x]
```

```
[Out] (3*Log[x])/8 - (3*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(8*b*n) - (C
os[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/(4*b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sin^4(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\
&= -\frac{\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{4bn} + \frac{3\text{Subst}\left(\int \sin^2(a+bx)\,dx, x, \log(cx^n)\right)}{4n} \\
&= -\frac{3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{8bn} \\
&\quad - \frac{\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{4bn} + \frac{3\text{Subst}\left(\int 1\,dx, x, \log(cx^n)\right)}{8n} \\
&= \frac{3\log(x)}{8} - \frac{3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{8bn} \\
&\quad - \frac{\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{4bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.70

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = \frac{12(a+b\log(cx^n)) - 8\sin(2(a+b\log(cx^n))) + \sin(4(a+b\log(cx^n)))}{32bn}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^4/x,x]
[Out] (12*(a + b*Log[c*x^n]) - 8*Sin[2*(a + b*Log[c*x^n])] + Sin[4*(a + b*Log[c*x
^n])])/(32*b*n)
```

Maple [A] (verified)

Time = 6.52 (sec) , antiderivative size = 46, normalized size of antiderivative = 0.63

method	result	size
parallelrisch	$\frac{12\ln(x)bn+\sin(4b\ln(c\,x^{n})+4a)-8\sin(2b\ln(c\,x^{n})+2a)}{32bn}$	46
derivativedivides	$\frac{-\frac{\left(\sin(a+b\ln(c\,x^{n}))^{3}+\frac{3\sin(a+b\ln(c\,x^{n}))}{2}\right)\cos(a+b\ln(c\,x^{n}))}{4}+\frac{3b\ln(c\,x^{n})}{8}+\frac{3a}{8}}{nb}$	61
default	$\frac{-\frac{\left(\sin(a+b\ln(c\,x^{n}))^{3}+\frac{3\sin(a+b\ln(c\,x^{n}))}{2}\right)\cos(a+b\ln(c\,x^{n}))}{4}+\frac{3b\ln(c\,x^{n})}{8}+\frac{3a}{8}}{nb}$	61

```
[In] int(sin(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)
[Out] 1/32*(12*ln(x)*b*n+sin(4*b*ln(c*x^n)+4*a)-8*sin(2*b*ln(c*x^n)+2*a))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.81

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{3\,bn\log(x) + \left(2\,\cos(bn\log(x)+b\log(c)+a)^3 - 5\,\cos(bn\log(x)+b\log(c)+a)\right)\sin(bn\log(x)+b\log(c}{8\,bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x,x, algorithm="fricas")
[Out] 1/8*(3*b*n*log(x) + (2*cos(b*n*log(x) + b*log(c) + a)^3 - 5*cos(b*n*log(x)
+ b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 11.45 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.37

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = -\frac{\begin{cases} \log(x)\cos(2a) & \text{for } b=0 \wedge (b=0 \vee n=0) \\ \log(x)\cos(2a+2b\log(c)) & \text{for } n=0 \\ \frac{\sin(2a+2b\log(cx^n))}{2bn} & \text{otherwise} \end{cases}}{2} + \frac{\begin{cases} \log(x)\cos(4a) & \text{for } b=0 \wedge (b=0 \vee n=0) \\ \log(x)\cos(4a+4b\log(c)) & \text{for } n=0 \\ \frac{\sin(4a+4b\log(cx^n))}{4bn} & \text{otherwise} \end{cases}}{8} + \frac{3\log(x)}{8}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**4/x,x)
```

```
[Out] -Piecewise((log(x)*cos(2*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos
(2*a + 2*b*log(c)), Eq(n, 0)), (sin(2*a + 2*b*log(c*x**n))/(2*b*n), True))/
2 + Piecewise((log(x)*cos(4*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*
cos(4*a + 4*b*log(c)), Eq(n, 0)), (sin(4*a + 4*b*log(c*x**n))/(4*b*n), True
))/8 + 3*log(x)/8
```

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 93, normalized size of antiderivative = 1.27

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{12\,bn\log(x) + \cos(4\,b\log(x^n) + 4\,a)\sin(4\,b\log(c)) - 8\,\cos(2\,b\log(x^n) + 2\,a)\sin(2\,b\log(c)) + \cos(4\,b\log}{32\,bn}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x,x, algorithm="maxima")
```

```
[Out] 1/32*(12*b*n*log(x) + cos(4*b*log(x^n) + 4*a)*sin(4*b*log(c)) - 8*cos(2*b*l
og(x^n) + 2*a)*sin(2*b*log(c)) + cos(4*b*log(c))*sin(4*b*log(x^n) + 4*a) -
8*cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(b*n)
```

Giac [F]

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^4}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x,x, algorithm="giac")
```

```
[Out] integrate(sin(b*log(c*x^n) + a)^4/x, x)
```

Mupad [B] (verification not implemented)

Time = 29.63 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.70

$$\int \frac{\sin^4(a+b\log(cx^n))}{x}\,dx = \frac{3\,\ln(x^n)}{8\,n} - \frac{\frac{\sin(2\,a+2\,b\,\ln(c\,x^n))}{4} - \frac{\sin(4\,a+4\,b\,\ln(c\,x^n))}{32}}{b\,n}$$

```
[In] int(sin(a + b*log(c*x^n))^4/x,x)
```

```
[Out] (3*log(x^n))/(8*n) - (sin(2*a + 2*b*log(c*x^n))/4 - sin(4*a + 4*b*log(c*x^n
))/32)/(b*n)
```

3.23 $\int \frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx$

Optimal result . . . 298
Rubi [A] (verified) . . . 298
Mathematica [A] (verified) . . . 300
Maple [A] (verified) . . . 300
Fricas [A] (verification not implemented) . . . 301
Sympy [C] (verification not implemented) . . . 301
Maxima [B] (verification not implemented) . . . 302
Giac [F] . . . 303
Mupad [F(-1)] . . . 303

Optimal result

Integrand size = 17, antiderivative size = 202

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{24b^4n^4}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{24b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{12b^2n^2\sin^2(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{4bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+16b^2n^2)\,x} - \frac{\sin^4(a+b\log(cx^n))}{(1+16b^2n^2)\,x}$$

```
[Out] -24*b^4*n^4/(64*b^4*n^4+20*b^2*n^2+1)/x-24*b^3*n^3*cos(a+b*ln(c*x^n))*sin(a
+b*ln(c*x^n))/(64*b^4*n^4+20*b^2*n^2+1)/x-12*b^2*n^2*sin(a+b*ln(c*x^n))^2/(
64*b^4*n^4+20*b^2*n^2+1)/x-4*b*n*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))^3/(1
6*b^2*n^2+1)/x-sin(a+b*ln(c*x^n))^4/(16*b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 202, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used

= {4575, 30}

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{\sin^4(a+b\log(cx^n))}{x(16b^2n^2+1)} - \frac{4bn\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x(16b^2n^2+1)} - \frac{12b^2n^2\sin^2(a+b\log(cx^n))}{x(64b^4n^4+20b^2n^2+1)} - \frac{24b^3n^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x(64b^4n^4+20b^2n^2+1)} - \frac{24b^4n^4}{x(64b^4n^4+20b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^4/x^2,x]
```

```
[Out] (-24*b^4*n^4)/((1 + 20*b^2*n^2 + 64*b^4*n^4)*x) - (24*b^3*n^3*Cos[a + b*Log
[c*x^n]]*Sin[a + b*Log[c*x^n]])/((1 + 20*b^2*n^2 + 64*b^4*n^4)*x) - (12*b^2
*n^2*Sin[a + b*Log[c*x^n]]^2)/((1 + 20*b^2*n^2 + 64*b^4*n^4)*x) - (4*b*n*Co
s[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/((1 + 16*b^2*n^2)*x) - Sin[a +
 b*Log[c*x^n]]^4/((1 + 16*b^2*n^2)*x)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{4bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+16b^2n^2)\,x} - \frac{\sin^4(a+b\log(cx^n))}{(1+16b^2n^2)\,x} + \frac{(12b^2n^2)\int \frac{\sin^2(a+b\log(cx^n))}{x^2}\,dx}{1+16b^2n^2}$$

$$= -\frac{24b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{12b^2n^2\sin^2(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{4bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+16b^2n^2)\,x} - \frac{\sin^4(a+b\log(cx^n))}{(1+16b^2n^2)\,x} + \frac{(24b^4n^4)\int\frac{1}{x^2}\,dx}{1+20b^2n^2+64b^4n^4}$$

$$= -\frac{24b^4n^4}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{24b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{12b^2n^2\sin^2(a+b\log(cx^n))}{(1+20b^2n^2+64b^4n^4)\,x} - \frac{4bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+16b^2n^2)\,x} - \frac{\sin^4(a+b\log(cx^n))}{(1+16b^2n^2)\,x}$$

Mathematica [A] (verified)

Time = 0.39 (sec) , antiderivative size = 170, normalized size of antiderivative = 0.84

$$\int\frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{3+60b^2n^2+192b^4n^4-4(1+16b^2n^2)\cos(2(a+b\log(cx^n)))+(1+4b^2n^2)\cos(4(a+b\log(cx^n)))+8b}{8(1}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^4/x^2,x]
```

```
[Out] -1/8*(3 + 60*b^2*n^2 + 192*b^4*n^4 - 4*(1 + 16*b^2*n^2)*Cos[2*(a + b*Log[c*
x^n])] + (1 + 4*b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] + 8*b*n*Sin[2*(a + b*Log
[c*x^n])] + 128*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] - 4*b*n*Sin[4*(a + b*Log[
c*x^n])] - 16*b^3*n^3*Sin[4*(a + b*Log[c*x^n])])/((1 + 20*b^2*n^2 + 64*b^4*
n^4)*x)
```

Maple [A] (verified)

Time = 11.25 (sec) , antiderivative size = 200, normalized size of antiderivative = 0.99

method	result
parallelrisch	$\frac{-192b^4n^4+16b^3n^3\sin(4b\ln(cx^n)+4a)-128b^3n^3\sin(2b\ln(cx^n)+2a)+64b^2n^2\cos(2b\ln(cx^n)+2a)-4b^2n^2\cos(4b\ln(cx^n)+4a)-}{8x(64b^4n^4+20b^2n^2+1}$

```
[In] int(sin(a+b*ln(c*x^n))^4/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/8*(-192*b^4*n^4+16*b^3*n^3*sin(4*b*ln(c*x^n)+4*a)-128*b^3*n^3*sin(2*b*ln(
c*x^n)+2*a)+64*b^2*n^2*cos(2*b*ln(c*x^n)+2*a)-4*b^2*n^2*cos(4*b*ln(c*x^n)+4
*a)-60*b^2*n^2+4*b*n*sin(4*b*ln(c*x^n)+4*a)-8*b*n*sin(2*b*ln(c*x^n)+2*a)+4*
```

```
cos(2*b*ln(c*x^n)+2*a)-cos(4*b*ln(c*x^n)+4*a)-3)/x/(64*b^4*n^4+20*b^2*n^2+1
)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 162, normalized size of antiderivative = 0.80

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{24\,b^4n^4 + (4\,b^2n^2+1)\cos(bn\log(x)+b\log(c)+a)^4 + 16\,b^2n^2 - 2\,(10\,b^2n^2+1)\cos(bn\log(x)+b\log}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^2,x, algorithm="fricas")
```

```
[Out] -(24*b^4*n^4 + (4*b^2*n^2 + 1)*cos(b*n*log(x) + b*log(c) + a)^4 + 16*b^2*n^
2 - 2*(10*b^2*n^2 + 1)*cos(b*n*log(x) + b*log(c) + a)^2 - 4*((4*b^3*n^3 + b
*n)*cos(b*n*log(x) + b*log(c) + a)^3 - (10*b^3*n^3 + b*n)*cos(b*n*log(x) +
b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a) + 1)/((64*b^4*n^4 + 20*b^2*n^
2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 99.62 (sec) , antiderivative size = 959, normalized size of antiderivative = 4.75

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^2}\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**4/x**2,x)
```

```
[Out] Piecewise((I*sin(4*a - 2*I*log(c*x**n)/n)/(12*x) + cos(2*a - I*log(c*x**n)/
n)/(4*x) + cos(4*a - 2*I*log(c*x**n)/n)/(24*x) - 3/(8*x) - I*log(c*x**n)*si
n(2*a - I*log(c*x**n)/n)/(4*n*x) - log(c*x**n)*cos(2*a - I*log(c*x**n)/n)/(
4*n*x), Eq(b, -I/(2*n))), (I*sin(2*a - I*log(c*x**n)/(2*n))/(3*x) + I*sin(4
*a - I*log(c*x**n)/n)/(16*x) + 2*cos(2*a - I*log(c*x**n)/(2*n))/(3*x) - 3/(
8*x) + I*log(c*x**n)*sin(4*a - I*log(c*x**n)/n)/(16*n*x) + log(c*x**n)*cos(
4*a - I*log(c*x**n)/n)/(16*n*x), Eq(b, -I/(4*n))), (-I*sin(2*a + I*log(c*x*
*n)/(2*n))/(3*x) - I*sin(4*a + I*log(c*x**n)/n)/(16*x) + 2*cos(2*a + I*log(
c*x**n)/(2*n))/(3*x) - 3/(8*x) - I*log(c*x**n)*sin(4*a + I*log(c*x**n)/n)/(
16*n*x) + log(c*x**n)*cos(4*a + I*log(c*x**n)/n)/(16*n*x), Eq(b, I/(4*n))),
 (I*sin(2*a + I*log(c*x**n)/n)/(4*x) - I*sin(4*a + 2*I*log(c*x**n)/n)/(12*x
) + cos(4*a + 2*I*log(c*x**n)/n)/(24*x) - 3/(8*x) + I*log(c*x**n)*sin(2*a +
 I*log(c*x**n)/n)/(4*n*x) - log(c*x**n)*cos(2*a + I*log(c*x**n)/n)/(4*n*x),
```

```
 Eq(b, I/(2*n))), (-24*b**4*n**4*sin(a + b*log(c*x**n))**4/(64*b**4*n**4*x
+ 20*b**2*n**2*x + x) - 48*b**4*n**4*sin(a + b*log(c*x**n))**2*cos(a + b*lo
g(c*x**n))**2/(64*b**4*n**4*x + 20*b**2*n**2*x + x) - 24*b**4*n**4*cos(a +
b*log(c*x**n))**4/(64*b**4*n**4*x + 20*b**2*n**2*x + x) - 40*b**3*n**3*sin(
a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(64*b**4*n**4*x + 20*b**2*n**2
*x + x) - 24*b**3*n**3*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**3/(64
*b**4*n**4*x + 20*b**2*n**2*x + x) - 16*b**2*n**2*sin(a + b*log(c*x**n))**4
/(64*b**4*n**4*x + 20*b**2*n**2*x + x) - 12*b**2*n**2*sin(a + b*log(c*x**n)
)**2*cos(a + b*log(c*x**n))**2/(64*b**4*n**4*x + 20*b**2*n**2*x + x) - 4*b*
n*sin(a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(64*b**4*n**4*x + 20*b**
2*n**2*x + x) - sin(a + b*log(c*x**n))**4/(64*b**4*n**4*x + 20*b**2*n**2*x
+ x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1085 vs. $2(202) = 404$.

Time = 0.26 (sec) , antiderivative size = 1085, normalized size of antiderivative = 5.37

$$\int \frac{\sin^4(a + b\log(cx^n))}{x^2} \, dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^2,x, algorithm="maxima")
```

```
[Out] -1/16*(384*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4 + 120*(b^2*c
os(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + 6*cos(4*b*log(c))^2 - (16*(
b^3*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*b*log(c)) +
 b^3*sin(4*b*log(c)))*n^3 - 4*(b^2*cos(8*b*log(c))*cos(4*b*log(c)) + b^2*si
n(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 4*(b*cos(4*b*log
(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c)
))*n - cos(8*b*log(c))*cos(4*b*log(c)) - sin(8*b*log(c))*sin(4*b*log(c)) -
cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 4*(32*(b^3*cos(4*b*log(c))*sin(6
*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b*log(c))*sin(
4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3 - 16*(b^2*cos(6*b*lo
g(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*l
og(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + 2*(b*co
s(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)) + b*cos(2
*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n - cos(6*b
*log(c))*cos(4*b*log(c)) - cos(4*b*log(c))*cos(2*b*log(c)) - sin(6*b*log(c)
)*sin(4*b*log(c)) - sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a
) + 6*sin(4*b*log(c))^2 - (16*(b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*si
n(8*b*log(c))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n^3 + 4*(b^2*cos(4*b*l
og(c))*sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*
log(c)))*n^2 + 4*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin
(4*b*log(c)) + b*cos(4*b*log(c)))*n + cos(4*b*log(c))*sin(8*b*log(c)) - cos
(8*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4
```

```
*(32*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log
(c)) + b^3*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*lo
g(c)))*n^3 + 16*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*
sin(4*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))
*sin(2*b*log(c)))*n^2 + 2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*lo
g(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c
))*sin(2*b*log(c)))*n + cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*s
in(4*b*log(c)) + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*
log(c)))*sin(2*b*log(x^n) + 2*a))/((64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b
*log(c))^2)*n^4 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 +
cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*x)
```

Giac [F]

$$\int \frac{\sin^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(b\log\left(cx^n\right)+a\right)^4}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^2,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^4/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^4}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^4/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^4/x^2, x)
```

3.24 $\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx$

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Optimal result

Integrand size = 17, antiderivative size = 210

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{3b^4n^4}{4(1+5b^2n^2+4b^4n^4)\,x^2} - \frac{3b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)\,x^2} - \frac{3b^2n^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)\,x^2} - \frac{bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+4b^2n^2)\,x^2} - \frac{\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)\,x^2}$$

```
[Out] -3/4*b^4*n^4/(4*b^4*n^4+5*b^2*n^2+1)/x^2-3/2*b^3*n^3*cos(a+b*ln(c*x^n))*sin
(a+b*ln(c*x^n))/(4*b^4*n^4+5*b^2*n^2+1)/x^2-3/2*b^2*n^2*sin(a+b*ln(c*x^n))^
2/(4*b^4*n^4+5*b^2*n^2+1)/x^2-b*n*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))^3/(
4*b^2*n^2+1)/x^2-1/2*sin(a+b*ln(c*x^n))^4/(4*b^2*n^2+1)/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 210, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used

$= \{4575, 30\}$

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{\sin^4(a+b\log(cx^n))}{2x^2(4b^2n^2+1)} - \frac{bn\sin^3(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x^2(4b^2n^2+1)} - \frac{3b^2n^2\sin^2(a+b\log(cx^n))}{2x^2(4b^4n^4+5b^2n^2+1)} - \frac{3b^3n^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2x^2(4b^4n^4+5b^2n^2+1)} - \frac{3b^4n^4}{4x^2(4b^4n^4+5b^2n^2+1)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^4/x^3,x]
```

```
[Out] (-3*b^4*n^4)/(4*(1 + 5*b^2*n^2 + 4*b^4*n^4)*x^2) - (3*b^3*n^3*Cos[a + b*Log
[c*x^n]]*Sin[a + b*Log[c*x^n]])/(2*(1 + 5*b^2*n^2 + 4*b^4*n^4)*x^2) - (3*b^
2*n^2*Sin[a + b*Log[c*x^n]]^2)/(2*(1 + 5*b^2*n^2 + 4*b^4*n^4)*x^2) - (b*n*C
os[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^3)/((1 + 4*b^2*n^2)*x^2) - Sin[a
 + b*Log[c*x^n]]^4/(2*(1 + 4*b^2*n^2)*x^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+4b^2n^2)\,x^2} - \frac{\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)\,x^2} + \frac{(3b^2n^2)\int \frac{\sin^2(a+b\log(cx^n))}{x^3}\,dx}{1+4b^2n^2}$$

$$= -\frac{3b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)x^2} - \frac{3b^2n^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)x^2} - \frac{bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+4b^2n^2)x^2} - \frac{\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)x^2} + \frac{(3b^4n^4)\int\frac{1}{x^3}\,dx}{2(1+5b^2n^2+4b^4n^4)}$$

$$= -\frac{3b^4n^4}{4(1+5b^2n^2+4b^4n^4)x^2} - \frac{3b^3n^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)x^2} - \frac{3b^2n^2\sin^2(a+b\log(cx^n))}{2(1+5b^2n^2+4b^4n^4)x^2} - \frac{bn\cos(a+b\log(cx^n))\sin^3(a+b\log(cx^n))}{(1+4b^2n^2)x^2} - \frac{\sin^4(a+b\log(cx^n))}{2(1+4b^2n^2)x^2}$$

Mathematica [A] (verified)

Time = 0.38 (sec) , antiderivative size = 169, normalized size of antiderivative = 0.80

$$\int\frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{3+15b^2n^2+12b^4n^4-4(1+4b^2n^2)\cos(2(a+b\log(cx^n)))+(1+b^2n^2)\cos(4(a+b\log(cx^n)))+4bn\,\mathrm{si}}{16(1+}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^4/x^3,x]
```

```
[Out] -1/16*(3 + 15*b^2*n^2 + 12*b^4*n^4 - 4*(1 + 4*b^2*n^2)*Cos[2*(a + b*Log[c*x
^n])] + (1 + b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] + 4*b*n*Sin[2*(a + b*Log[c*
x^n])] + 16*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] - 2*b*n*Sin[4*(a + b*Log[c*x^
n])] - 2*b^3*n^3*Sin[4*(a + b*Log[c*x^n])])/((1 + 5*b^2*n^2 + 4*b^4*n^4)*x^
2)
```

Maple [A] (verified)

Time = 18.99 (sec) , antiderivative size = 200, normalized size of antiderivative = 0.95

method	result
parallelrisch	$\frac{-12b^4n^4-16b^3n^3\sin(2b\ln(cx^n)+2a)+2b^3n^3\sin(4b\ln(cx^n)+4a)-b^2n^2\cos(4b\ln(cx^n)+4a)+16b^2n^2\cos(2b\ln(cx^n)+2a)-15b^2}{16x^2(4b^4n^4+5b^2n^2+1)}$

```
[In] int(sin(a+b*ln(c*x^n))^4/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/16*(-12*b^4*n^4-16*b^3*n^3*sin(2*b*ln(c*x^n)+2*a)+2*b^3*n^3*sin(4*b*ln(c*
x^n)+4*a)-b^2*n^2*cos(4*b*ln(c*x^n)+4*a)+16*b^2*n^2*cos(2*b*ln(c*x^n)+2*a)-
15*b^2*n^2-4*b*n*sin(2*b*ln(c*x^n)+2*a)+2*b*n*sin(4*b*ln(c*x^n)+4*a)-cos(4*
b*ln(c*x^n)+4*a)+4*cos(2*b*ln(c*x^n)+2*a)-3)/x^2/(4*b^4*n^4+5*b^2*n^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 163, normalized size of antiderivative = 0.78

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{3\,b^4n^4+2\,(b^2n^2+1)\cos(bn\log(x)+b\log(c)+a)^4+8\,b^2n^2-2\,(5\,b^2n^2+2)\cos(bn\log(x)+b\log(c)\cdots}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^3,x, algorithm="fricas")
```

```
[Out] -1/4*(3*b^4*n^4 + 2*(b^2*n^2 + 1)*cos(b*n*log(x) + b*log(c) + a)^4 + 8*b^2*
n^2 - 2*(5*b^2*n^2 + 2)*cos(b*n*log(x) + b*log(c) + a)^2 - 2*(2*(b^3*n^3 +
b*n)*cos(b*n*log(x) + b*log(c) + a)^3 - (5*b^3*n^3 + 2*b*n)*cos(b*n*log(x)
+ b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a) + 2)/((4*b^4*n^4 + 5*b^2*n^
2 + 1)*x^2)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 98.44 (sec) , antiderivative size = 1066, normalized size of antiderivative = 5.08

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*ln(c*x**n))**4/x**3,x)
```

```
[Out] Piecewise((I*sin(4*a - 4*I*log(c*x**n)/n)/(24*x**2) + cos(2*a - 2*I*log(c*x
**n)/n)/(8*x**2) + cos(4*a - 4*I*log(c*x**n)/n)/(48*x**2) - 3/(16*x**2) - I
*log(c*x**n)*sin(2*a - 2*I*log(c*x**n)/n)/(4*n*x**2) - log(c*x**n)*cos(2*a
- 2*I*log(c*x**n)/n)/(4*n*x**2), Eq(b, -I/n)), (I*sin(2*a - I*log(c*x**n)/n
)/(6*x**2) + I*sin(4*a - 2*I*log(c*x**n)/n)/(32*x**2) + cos(2*a - I*log(c*x
**n)/n)/(3*x**2) - 3/(16*x**2) + I*log(c*x**n)*sin(4*a - 2*I*log(c*x**n)/n)
/(16*n*x**2) + log(c*x**n)*cos(4*a - 2*I*log(c*x**n)/n)/(16*n*x**2), Eq(b,
-I/(2*n))), (-I*sin(2*a + I*log(c*x**n)/n)/(6*x**2) + cos(2*a + I*log(c*x**
n)/n)/(3*x**2) - cos(4*a + 2*I*log(c*x**n)/n)/(32*x**2) - 3/(16*x**2) - I*l
og(c*x**n)*sin(4*a + 2*I*log(c*x**n)/n)/(16*n*x**2) + log(c*x**n)*cos(4*a +
 2*I*log(c*x**n)/n)/(16*n*x**2), Eq(b, I/(2*n))), (-I*sin(4*a + 4*I*log(c*x
**n)/n)/(24*x**2) + cos(2*a + 2*I*log(c*x**n)/n)/(8*x**2) + cos(4*a + 4*I*l
og(c*x**n)/n)/(48*x**2) - 3/(16*x**2) + I*log(c*x**n)*sin(2*a + 2*I*log(c*x
**n)/n)/(4*n*x**2) - log(c*x**n)*cos(2*a + 2*I*log(c*x**n)/n)/(4*n*x**2), E
q(b, I/n)), (-3*b**4*n**4*sin(a + b*log(c*x**n))**4/(16*b**4*n**4*x**2 + 20
*b**2*n**2*x**2 + 4*x**2) - 6*b**4*n**4*sin(a + b*log(c*x**n))**2*cos(a + b
```

```
*log(c*x**n))**2/(16*b**4*n**4*x**2 + 20*b**2*n**2*x**2 + 4*x**2) - 3*b**4*
n**4*cos(a + b*log(c*x**n))**4/(16*b**4*n**4*x**2 + 20*b**2*n**2*x**2 + 4*x
**2) - 10*b**3*n**3*sin(a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(16*b*
*4*n**4*x**2 + 20*b**2*n**2*x**2 + 4*x**2) - 6*b**3*n**3*sin(a + b*log(c*x*
*n))*cos(a + b*log(c*x**n))**3/(16*b**4*n**4*x**2 + 20*b**2*n**2*x**2 + 4*x
**2) - 8*b**2*n**2*sin(a + b*log(c*x**n))**4/(16*b**4*n**4*x**2 + 20*b**2*n
**2*x**2 + 4*x**2) - 6*b**2*n**2*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*
x**n))**2/(16*b**4*n**4*x**2 + 20*b**2*n**2*x**2 + 4*x**2) - 4*b*n*sin(a +
b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(16*b**4*n**4*x**2 + 20*b**2*n**2*
x**2 + 4*x**2) - 2*sin(a + b*log(c*x**n))**4/(16*b**4*n**4*x**2 + 20*b**2*n
**2*x**2 + 4*x**2), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1082 vs. $2(202) = 404$.

Time = 0.26 (sec) , antiderivative size = 1082, normalized size of antiderivative = 5.15

$$\int \frac{\sin^4(a + b\log(cx^n))}{x^3} dx = \text{Too large to display}$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^3,x, algorithm="maxima")
```

```
[Out] -1/32*(24*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4 + 30*(b^2*cos
(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + 6*cos(4*b*log(c))^2 - (2*(b^3
*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*b*log(c)) + b^
3*sin(4*b*log(c)))*n^3 - (b^2*cos(8*b*log(c))*cos(4*b*log(c)) + b^2*sin(8*b
*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 2*(b*cos(4*b*log(c))*
sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c)))*n
- cos(8*b*log(c))*cos(4*b*log(c)) - sin(8*b*log(c))*sin(4*b*log(c)) - cos(4
*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 4*(4*(b^3*cos(4*b*log(c))*sin(6*b*log
(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b*log(c))*sin(4*b*lo
g(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3 - 4*(b^2*cos(6*b*log(c))*c
os(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(c))*
sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(4*b*log
(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)) + b*cos(2*b*log(c)
)*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n - cos(6*b*log(c))*
cos(4*b*log(c)) - cos(4*b*log(c))*cos(2*b*log(c)) - sin(6*b*log(c))*sin(4*b
*log(c)) - sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 6*sin
(4*b*log(c))^2 - (2*(b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*log(
c))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n^3 + (b^2*cos(4*b*log(c))*sin(8
*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c)))*n^2
 + 2*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c))
 + b*cos(4*b*log(c)))*n + cos(4*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))
*sin(4*b*log(c)) + sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*(4*(b^3*cos
(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*si
```

```
n(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3 +
4*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4*b*log(c)
) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c
)))*n^2 + (b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*log(c))*cos(2*b*lo
g(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c
)))*n + cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)) +
 cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b
*log(x^n) + 2*a))/((4*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4 +
 5*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + cos(4*b*log(c))^2
+ sin(4*b*log(c))^2)*x^2)
```

Giac [F]

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(b\log(cx^n)+a)^4}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^4/x^3,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^4/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^4(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(a+b\,\ln(c\,x^n))^4}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^4/x^3,x)
[Out] int(sin(a + b*log(c*x^n))^4/x^3, x)
```

3.25 $\int \sin(\log(a+bx))\,dx$

Optimal result 310
Rubi [A] (verified) 310
Mathematica [A] (verified) 311
Maple [A] (verified) 311
Fricas [A] (verification not implemented) 311
Sympy [A] (verification not implemented) 312
Maxima [A] (verification not implemented) 312
Giac [A] (verification not implemented) 312
Mupad [B] (verification not implemented) 313

Optimal result

Integrand size = 7, antiderivative size = 39

$$\int \sin(\log(a+bx))\,dx=-\frac{(a+bx)\cos(\log(a+bx))}{2b}+\frac{(a+bx)\sin(\log(a+bx))}{2b}$$

```
[Out] -1/2*(b*x+a)*cos(ln(b*x+a))/b+1/2*(b*x+a)*sin(ln(b*x+a))/b
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4563}

$$\int \sin(\log(a+bx))\,dx=\frac{(a+bx)\sin(\log(a+bx))}{2b}-\frac{(a+bx)\cos(\log(a+bx))}{2b}$$

```
[In] Int[Sin[Log[a + b*x]],x]
```

```
[Out] -1/2*((a + b*x)*Cos[Log[a + b*x]])/b + ((a + b*x)*Sin[Log[a + b*x]])/(2*b)
```

Rule 4563

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] - Simp[b*d*n*x*(Cos[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \sin(\log(x))\,dx,x,a+bx\right)}{b}\\&=-\frac{(a+bx)\cos(\log(a+bx))}{2b}+\frac{(a+bx)\sin(\log(a+bx))}{2b}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.02 (sec) , antiderivative size = 29, normalized size of antiderivative = 0.74

$$\int \sin(\log(a+bx))\,dx = -\frac{(a+bx)(\cos(\log(a+bx))-\sin(\log(a+bx)))}{2b}$$

```
[In] Integrate[Sin[Log[a + b*x]],x]
[Out] -1/2*((a + b*x)*(Cos[Log[a + b*x]] - Sin[Log[a + b*x]]))/b
```

Maple [A] (verified)

Time = 0.42 (sec) , antiderivative size = 34, normalized size of antiderivative = 0.87

method	result	size
default	$\frac{-\frac{(xb+a)\cos(\ln(xb+a))}{2}+\frac{(xb+a)\sin(\ln(xb+a))}{2}}{b}$	34
risch	$\frac{\left(-\frac{1}{4}-\frac{i}{4}\right)(xb+a)(xb+a)^{i}}{b}+\frac{\left(-\frac{1}{4}+\frac{i}{4}\right)(xb+a)(xb+a)^{-i}}{b}$	44
parallelrisch	$\frac{(xb-a)\tan\left(\ln\left(\sqrt{xb+a}\right)\right)^{2}+(2xb+2a)\tan\left(\ln\left(\sqrt{xb+a}\right)\right)-xb-3a}{2b\left(1+\tan\left(\ln\left(\sqrt{xb+a}\right)\right)^{2}\right)}$	66
norman	$\frac{x\tan\left(\frac{\ln(xb+a)}{2}\right)+\frac{a\tan\left(\frac{\ln(xb+a)}{2}\right)}{b}+\frac{a\tan\left(\frac{\ln(xb+a)}{2}\right)^{2}}{b}-\frac{x}{2}+\frac{x\tan\left(\frac{\ln(xb+a)}{2}\right)^{2}}{2}}{1+\tan\left(\frac{\ln(xb+a)}{2}\right)^{2}}$	76

```
[In] int(sin(ln(b*x+a)),x,method=_RETURNVERBOSE)
[Out] 1/b*(-1/2*(b*x+a)*cos(ln(b*x+a))+1/2*(b*x+a)*sin(ln(b*x+a)))
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 33, normalized size of antiderivative = 0.85

$$\int \sin(\log(a+bx))\,dx = -\frac{(bx+a)\cos(\log(bx+a))-(bx+a)\sin(\log(bx+a))}{2\,b}$$

```
[In] integrate(sin(log(b*x+a)),x, algorithm="fricas")
[Out] -1/2*((b*x + a)*cos(log(b*x + a)) - (b*x + a)*sin(log(b*x + a)))/b
```

Sympy [A] (verification not implemented)

Time = 0.18 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.44

$$\int \sin(\log(a+bx))\,dx = \begin{cases} \frac{a\sin(\log(a+bx))}{2b} - \frac{a\cos(\log(a+bx))}{2b} + \frac{x\sin(\log(a+bx))}{2} - \frac{x\cos(\log(a+bx))}{2} & \text{for } b\neq 0 \\ x\sin(\log(a)) & \text{otherwise} \end{cases}$$

```
[In] integrate(sin(ln(b*x+a)),x)
[Out] Piecewise((a*sin(log(a + b*x))/(2*b) - a*cos(log(a + b*x))/(2*b) + x*sin(lo
g(a + b*x))/2 - x*cos(log(a + b*x))/2, Ne(b, 0)), (x*sin(log(a)), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.19 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.69

$$\int \sin(\log(a+bx))\,dx = -\frac{(bx+a)(\cos(\log(bx+a)) - \sin(\log(bx+a)))}{2\,b}$$

```
[In] integrate(sin(log(b*x+a)),x, algorithm="maxima")
[Out] -1/2*(b*x + a)*(cos(log(b*x + a)) - sin(log(b*x + a)))/b
```

Giac [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.90

$$\int \sin(\log(a+bx))\,dx = -\frac{(bx+a)\cos(\log(bx+a))}{2\,b} + \frac{(bx+a)\sin(\log(bx+a))}{2\,b}$$

```
[In] integrate(sin(log(b*x+a)),x, algorithm="giac")
[Out] -1/2*(b*x + a)*cos(log(b*x + a))/b + 1/2*(b*x + a)*sin(log(b*x + a))/b
```

Mupad [B] (verification not implemented)

Time = 27.84 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.92

$$\int \sin(\log(a+bx))\,dx = \begin{cases} x\,\sin\left(\ln\left(a\right)\right) & \text{if } b=0 \\ -\frac{\sqrt{2}\,\cos\left(\frac{\pi}{4}+\ln(a+b\,x)\right)\,(a+b\,x)}{2\,b} & \text{if } b\neq 0 \end{cases}$$

```
[In] int(sin(log(a + b*x)),x)
[Out] piecewise(b == 0, x*sin(log(a)), b ~= 0, -(2^(1/2)*cos(pi/4 + log(a + b*x))
*(a + b*x))/(2*b))
```

3.26 $\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result . . . 314
Rubi [A] (verified) . . . 314
Mathematica [F] . . . 315
Maple [F] . . . 316
Fricas [C] (verification not implemented) . . . 316
Sympy [F] . . . 316
Maxima [A] (verification not implemented) . . . 317
Giac [C] (verification not implemented) . . . 317
Mupad [B] (verification not implemented) . . . 318

Optimal result

Integrand size = 28, antiderivative size = 133

$$\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx=-\frac{e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}\,n}}x^{1+m}\left(cx^n\right)^{\frac{1+m}{n}}}{4\sqrt{-\frac{(1+m)^2}{n^2}}\,n}+\frac{e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}\,n}{1+m}}(1+m)x^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\log(x)}{2\sqrt{-\frac{(1+m)^2}{n^2}}\,n}$$

```
[Out] -1/4*exp(a*(1+m)/n/(-(1+m)^2/n^2)^(1/2))*x^(1+m)*(c*x^n)^((1+m)/n)/n/(-(1+m
)^2/n^2)^(1/2)+1/2*exp(a*n*(-(1+m)^2/n^2)^(1/2)/(1+m))*(1+m)*x^(1+m)*ln(x)/
n/((c*x^n)^((1+m)/n))/(-(1+m)^2/n^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.32 (sec) , antiderivative size = 133, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used = {4581, 4577}

$$\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx=\frac{(m+1)x^{m+1}\log(x)e^{\frac{an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}\left(cx^n\right)^{-\frac{m+1}{n}}}{2n\sqrt{-\frac{(m+1)^2}{n^2}}}-\frac{x^{m+1}e^{\frac{a(m+1)}{n\sqrt{-\frac{(m+1)^2}{n^2}}}}\left(cx^n\right)^{\frac{m+1}{n}}}{4n\sqrt{-\frac{(m+1)^2}{n^2}}}$$

```
[In] Int[x^m*Sin[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]],x]
```

```
[Out] -1/4*(E^((a*(1 + m))/(Sqrt[-((1 + m)^2/n^2)]*n))*x^(1 + m)*(c*x^n)^((1 + m)
/n))/(Sqrt[-((1 + m)^2/n^2)]*n) + (E^((a*Sqrt[-((1 + m)^2/n^2)]*n)/(1 + m))
*(1 + m)*x^(1 + m)*Log[x])/(2*Sqrt[-((1 + m)^2/n^2)]*n*(c*x^n)^((1 + m)/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log(x)\right)dx, x, cx^n\right)}{n}$$

$$= \frac{\left((1+m)x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}}{x}-e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}n}}x^{-1+\frac{2(1+m)}{n}}\right)dx, x, cx^n\right)}{2\sqrt{-\frac{(1+m)^2}{n^2}}n^2}$$

$$= -\frac{e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}n}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{4\sqrt{-\frac{(1+m)^2}{n^2}}n}+\frac{e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}(1+m)x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)}{2\sqrt{-\frac{(1+m)^2}{n^2}}n}$$

Mathematica [F]

$$\int x^m\sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx=\int x^m\sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx$$

```
[In] Integrate[x^m*Sin[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]],x]
```

```
[Out] Integrate[x^m*Sin[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]], x]
```

Maple [F]

$$\int x^{m} \sin \left(a +\ln \left(c \,x^{n}\right) \sqrt{-\frac{\left(1+m \right)^{2}}{n^{2}}}\right)d x$$

```
[In] int(x^m*sin(a+ln(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x)
[Out] int(x^m*sin(a+ln(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 63, normalized size of antiderivative = 0.47

$$\int x^m \sin \left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log \left(cx^n\right)\right)\,dx=\frac{\left(i\,x^{2}x^{2\,m}-2\,(i\,m+i)e^{\left(\frac{2\,(i\,an-(m+1)\,\log\left(c\right))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-(m+1)\,\log\left(c\right)}{n}\right)}}{4\,(m+1)}$$

```
[In] integrate(x^m*sin(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="fricas")
[Out] 1/4*(I*x^2*x^(2*m) - 2*(I*m + I)*e^(2*(I*a*n - (m + 1)*log(c))/n)*log(x))*e
^(-(I*a*n - (m + 1)*log(c))/n)/(m + 1)
```

Sympy [F]

$$\int x^m \sin \left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log \left(cx^n\right)\right)\,dx=\int x^{m}\sin{\left(a+\sqrt{-\frac{m^{2}}{n^{2}}-\frac{2m}{n^{2}}-\frac{1}{n^{2}}}\log{\left(cx^{n}\right)}\right)}\,dx$$

```
[In] integrate(x**m*sin(a+ln(c*x**n)*(-(1+m)**2/n**2)**(1/2)),x)
[Out] Integral(x**m*sin(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.62

$$\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{c^{\frac{2m}{n}+\frac{2}{n}}xe^{\left(m\log(x)+\frac{m\log(x^n)}{n}+\frac{\log(x^n)}{n}\right)}\sin\left(a\right)+2\left(m\sin\left(a\right)+\sin\left(a\right)\right)\log\left(x\right)}{4\left(c^{\frac{m}{n}+\frac{1}{n}}m+c^{\frac{m}{n}+\frac{1}{n}}\right)}$$

```
[In] integrate(x^m*sin(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="maxima")
```

```
[Out] 1/4*(c^(2*m/n + 2/n)*x*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n)*sin(a) + 2*
(m*sin(a) + sin(a))*log(x))/(c^(m/n + 1/n)*m + c^(m/n + 1/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 1.06 (sec) , antiderivative size = 272, normalized size of antiderivative = 2.05

$$\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{-i\,mn^2xx^me^{\left(i\,a-\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}+i\,mn^2xx^me^{\left(-i\,a+\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}-i\,n^2xx^me^{\left(i\,a-\frac{n|mn+n|\log}{}\right.}}{}$$

```
[In] integrate(x^m*sin(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="giac")
```

```
[Out] 1/2*(-I*m*n^2*x*x^m*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/
n^2) + I*m*n^2*x*x^m*e^(-I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c)
)/n^2) - I*n^2*x*x^m*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))
/n^2) - I*n*x*x^m*abs(m*n + n)*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n +
n)*log(c))/n^2) + I*n^2*x*x^m*e^(-I*a + (n*abs(m*n + n)*log(x) + abs(m*n +
n)*log(c))/n^2) - I*n*x*x^m*abs(m*n + n)*e^(-I*a + (n*abs(m*n + n)*log(x) +
 abs(m*n + n)*log(c))/n^2))/(m^2*n^2 + 2*m*n^2 - (m*n + n)^2 + n^2)
```

Mupad [B] (verification not implemented)

Time = 28.79 (sec) , antiderivative size = 135, normalized size of antiderivative = 1.02

$$\int x^m \sin\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx=\frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}\,1\mathrm{i}}{2\,m+2-n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,2\mathrm{i}}-\frac{x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}\,1\mathrm{i}}{2\,m+2+n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,2\mathrm{i}}$$

```
[In] int(x^m*sin(a + log(c*x^n)*(-(m + 1)^2/n^2)^(1/2)),x)
```

```
[Out] (x*x^m*exp(-a*1i)/(c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)*1i)/(2
*m - n*(-(m + 1)^2/n^2)^(1/2)*2i + 2) - (x*x^m*exp(a*1i)*(c*x^n)^((- (2*m)/
n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)*1i)/(2*m + n*(-(m + 1)^2/n^2)^(1/2)*2i + 2
)
```

3.27 $\int x^2 \sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result . . . 319
Rubi [A] (verified) . . . 319
Mathematica [F] . . . 320
Maple [B] (verified) . . . 320
Fricas [C] (verification not implemented) . . . 321
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Giac [A] (verification not implemented) . . . 322
Mupad [B] (verification not implemented) . . . 322

Optimal result

Integrand size = 24, antiderivative size = 88

$$\int x^2 \sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{12}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{3/n} - \frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{-3/n}\log(x)$$

```
[Out] 1/12*n*x^3*(c*x^n)^(3/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/2*exp(a*n
*(-1/n^2)^(1/2))*n*x^3*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(3/n))
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used = {4581, 4577}

$$\int x^2 \sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{12}\sqrt{-\frac{1}{n^2}}nx^3e^{-a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{3/n} - \frac{1}{2}\sqrt{-\frac{1}{n^2}}nx^3e^{a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-3/n}$$

```
[In] Int[x^2*Sin[a + 3*Sqrt[-n^(-2)]*Log[c*x^n]],x]
```

```
[Out] (Sqrt[-n^(-2)]*n*x^3*(c*x^n)^(3/n))/(12*E^(a*Sqrt[-n^(-2)]*n)) - (E^(a*Sqrt
[-n^(-2)]*n)*Sqrt[-n^(-2)]*n*x^3*Log[x])/(2*(c*x^n)^(3/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sin\left(a+3\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}\\
&= -\left(\frac{1}{2}\left(\sqrt{-\frac{1}{n^2}}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int\left(\frac{e^{a\sqrt{-\frac{1}{n^2}}n}}{x}-e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{6}{n}}\right)\,dx, x, cx^n\right)\right)\\
&= \frac{1}{12}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{3/n}-\frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{-3/n}\log(x)
\end{aligned}$$

Mathematica [F]

$$\int x^2\sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x^2\sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] Integrate[x^2*Sin[a + 3*Sqrt[-n^(-2)]*Log[c*x^n]],x]
[Out] Integrate[x^2*Sin[a + 3*Sqrt[-n^(-2)]*Log[c*x^n]], x]
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 618 vs. 2(77) = 154.

Time = 2.67 (sec) , antiderivative size = 619, normalized size of antiderivative = 7.03

method	result
parts	$\frac{3n\,x^{2}\sqrt{-\frac{1}{n^{2}}}\,\mathrm{e}^{\frac{\ln(c\,x^{n})}{n}-\frac{\ln(c)}{n}}\cos\left(a+3\ln(c\,x^{n})\sqrt{-\frac{1}{n^{2}}}\right)}{8}-\frac{x^{2}\mathrm{e}^{\frac{\ln(c\,x^{n})}{n}-\frac{\ln(c)}{n}}\sin\left(a+3\ln(c\,x^{n})\sqrt{-\frac{1}{n^{2}}}\right)}{8}-\frac{n\left(-\frac{\sqrt{-\frac{1}{n^{2}}}\,n\,c^{-\frac{1}{n}}\,\mathrm{e}^{\frac{\ln\cdots}{}}}{}\cdots\right.}{}$

[In] int(x^2*sin(a+3*ln(c*x^n)*(-1/n^2)^(1/2)),x,method=_RETURNVERBOSE)

[Out] 3/8*n*x^2*(-1/n^2)^(1/2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*cos(a+3*ln(c*x^n)*(-1/n^2)^(1/2))-1/8*x^2*exp(1/n*ln(c*x^n)-1/n*ln(c))*sin(a+3*ln(c*x^n)*(-1/n^2)^(1/2))-1/4/n*(-n*(-1/2*(-1/n^2)^(1/2)*n/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)+1/6*(-1/n^2)^(1/2)*n/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3+1/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))-1/6*n*(-1/n^2)^(1/2)*exp(1/n*(ln(c*x^n)-n*ln(x)))/(c^(1/n))*x^3*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2+1/2*(-1/n^2)^(1/2)*n/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2)/(1+tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2)+3*(-1/n^2)^(1/2)*n^2*(1/2/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)+1/3/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))-1/2/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2-1/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^3*ln(x)*tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2)))/(1+tan(1/2*a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2))

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.48

$$\int x^2 \sin\left(a+3\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{12}\left(i\,x^6-6i\,e^{\left(\frac{2\,(i\,an-3\,\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-3\,\log(c)}{n}\right)}$$

[In] integrate(x^2*sin(a+3*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="fricas")

[Out] 1/12*(I*x^6 - 6*I*e^(2*(I*a*n - 3*log(c))/n)*log(x))*e^(-(I*a*n - 3*log(c))/n)

Sympy [F]

$$\int x^2 \sin\left(a + 3\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = \int x^2 \sin\left(a + 3\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$$

```
[In] integrate(x**2*sin(a+3*ln(c*x**n)*(-1/n**2)**(1/2)),x)
[Out] Integral(x**2*sin(a + 3*sqrt(-1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 31, normalized size of antiderivative = 0.35

$$\int x^2 \sin\left(a + 3\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = \frac{c^{\frac{6}{n}}x^6\sin(a) + 6\,\log(x)\sin(a)}{12\,c^{\frac{3}{n}}}$$

```
[In] integrate(x^2*sin(a+3*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="maxima")
[Out] 1/12*(c^(6/n)*x^6*sin(a) + 6*log(x)*sin(a))/c^(3/n)
```

Giac [A] (verification not implemented)

none

Time = 0.43 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int x^2 \sin\left(a + 3\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = +\infty$$

```
[In] integrate(x^2*sin(a+3*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 27.83 (sec) , antiderivative size = 85, normalized size of antiderivative = 0.97

$$\int x^2 \sin\left(a + 3\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = -\frac{x^3\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{\sqrt{-\frac{1}{n^2}}\,3\mathrm{i}}}}{6\,n\,\sqrt{-\frac{1}{n^2}}+6\mathrm{i}} - \frac{x^3\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{\sqrt{-\frac{1}{n^2}}\,3\mathrm{i}}}{6\,n\,\sqrt{-\frac{1}{n^2}}-6\mathrm{i}}$$

```
[In] int(x^2*sin(a + 3*log(c*x^n)*(-1/n^2)^(1/2)),x)
[Out] - (x^3*exp(-a*1i)/(c*x^n)^((-1/n^2)^(1/2)*3i))/(6*n*(-1/n^2)^(1/2) + 6i) -
(x^3*exp(a*1i)*(c*x^n)^((-1/n^2)^(1/2)*3i))/(6*n*(-1/n^2)^(1/2) - 6i)
```

3.28 $\int x \sin \left(a+2 \sqrt{-\frac{1}{n^2}} \log \left(c x^n\right)\right) d x$

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Mathematica [F] 324
Maple [B] (verified) 324
Fricas [C] (verification not implemented) 325
Sympy [F] 326
Maxima [A] (verification not implemented) 326
Giac [A] (verification not implemented) 326
Mupad [B] (verification not implemented) 326

Optimal result

Integrand size = 22, antiderivative size = 88

$$\int x \sin \left(a+2 \sqrt{-\frac{1}{n^2}} \log \left(c x^n\right)\right) \, dx = \frac{1}{8} e^{-a \sqrt{-\frac{1}{n^2}} n} \sqrt{-\frac{1}{n^2}} n x^2 \left(c x^n\right)^{2/n} - \frac{1}{2} e^{a \sqrt{-\frac{1}{n^2}} n} \sqrt{-\frac{1}{n^2}} n x^2 \left(c x^n\right)^{-2/n} \log (x)$$

```
[Out] 1/8*n*x^2*(c*x^n)^(2/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/2*exp(a*n*
(-1/n^2)^(1/2))*n*x^2*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(2/n))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.091, Rules used = {4581, 4577}

$$\int x \sin \left(a+2 \sqrt{-\frac{1}{n^2}} \log \left(c x^n\right)\right) \, dx = \frac{1}{8} \sqrt{-\frac{1}{n^2}} n x^2 e^{-a \sqrt{-\frac{1}{n^2}} n} \left(c x^n\right)^{2/n} - \frac{1}{2} \sqrt{-\frac{1}{n^2}} n x^2 e^{a \sqrt{-\frac{1}{n^2}} n} \log (x) \left(c x^n\right)^{-2/n}$$

```
[In] Int[x*Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]],x]
```

```
[Out] (Sqrt[-n^(-2)]*n*x^2*(c*x^n)^(2/n))/(8*E^(a*Sqrt[-n^(-2)]*n)) - (E^(a*Sqrt[
-n^(-2)]*n)*Sqrt[-n^(-2)]*n*x^2*Log[x])/(2*(c*x^n)^(2/n))
```

<u>Rule 4577</u>

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{n}$$
$$= -\left(\frac{1}{2}\left(\sqrt{-\frac{1}{n^2}}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int\left(\frac{e^{a\sqrt{-\frac{1}{n^2}}n}}{x}-e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{n}}\right)\,dx,x,cx^n\right)\right)$$
$$= \frac{1}{8}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{2/n}-\frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{-2/n}\log(x)$$

Mathematica [F]

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$$

```
[In] Integrate[x*Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]],x]
[Out] Integrate[x*Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]], x]
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 609 vs. $2(77) = 154$.

Time = 1.82 (sec) , antiderivative size = 610, normalized size of antiderivative = 6.93

method	result
parts	$\frac{2nx\sqrt{-\frac{1}{n^2}}\,\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos\left(a+2\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)}{3}-\frac{x\,\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin\left(a+2\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)}{3}-\frac{-\frac{n\left(-\frac{c^{-\frac{1}{n}}\mathrm{e}^{\frac{\ln(c\,x^n)-n\ln(}{n}}}{4\sqrt{-\frac{1}{n^2}}\,n}\right.}{}}{}$

[In] int(x*sin(a+2*ln(c*x^n)*(-1/n^2)^(1/2)),x,method=_RETURNVERBOSE)

[Out] 2/3*n*x*(-1/n^2)^(1/2)*exp(1/n*ln(c*x^n)-1/n*ln(c))*cos(a+2*ln(c*x^n)*(-1/n^2)^(1/2))-1/3*x*exp(1/n*ln(c*x^n)-1/n*ln(c))*sin(a+2*ln(c*x^n)*(-1/n^2)^(1/2))-1/3/n*(-n*(-1/4/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2+1/2/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*ln(x)+1/4/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2+1/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*ln(x)*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))-1/2/(-1/n^2)^(1/2)/(c^(1/n))/n*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*ln(x)*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2)/(1+tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2)+2*(-1/n^2)^(1/2)*n^2*(-1/2/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*ln(x)*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2+1/2/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*x^2*ln(x)-1/2*n*(-1/n^2)^(1/2)*exp(1/n*(ln(c*x^n)-n*ln(x)))/(c^(1/n))*x^2*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))+1/(c^(1/n))*exp(1/n*(ln(c*x^n)-n*ln(x)))*n*(-1/n^2)^(1/2)*x^2*ln(x)*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2)))/(1+tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2))

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.48

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{1}{8}\left(i\,x^4-4i\,e^{\left(\frac{2\,(i\,an-2\,\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-2\,\log(c)}{n}\right)}$$

[In] integrate(x*sin(a+2*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="fricas")

[Out] 1/8*(I*x^4 - 4*I*e^(2*(I*a*n - 2*log(c))/n)*log(x))*e^(-(I*a*n - 2*log(c))/n)

Sympy [F]

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] integrate(x*sin(a+2*ln(c*x**n)*(-1/n**2)**(1/2)),x)
[Out] Integral(x*sin(a + 2*sqrt(-1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 31, normalized size of antiderivative = 0.35

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{c^{\frac{4}{n}}x^4\sin\left(a\right)+4\,\log\left(x\right)\sin\left(a\right)}{8\,c^{\frac{2}{n}}}$$

```
[In] integrate(x*sin(a+2*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="maxima")
[Out] 1/8*(c^(4/n)*x^4*sin(a) + 4*log(x)*sin(a))/c^(2/n)
```

Giac [A] (verification not implemented)

none

Time = 0.42 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(x*sin(a+2*log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 27.34 (sec) , antiderivative size = 85, normalized size of antiderivative = 0.97

$$\int x\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-\frac{x^2\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}}}{4\,n\,\sqrt{-\frac{1}{n^2}}+4\mathrm{i}}-\frac{x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}}{4\,n\,\sqrt{-\frac{1}{n^2}}-4\mathrm{i}}$$

```
[In] int(x*sin(a + 2*log(c*x^n)*(-1/n^2)^(1/2)),x)
[Out] - (x^2*exp(-a*1i)/(c*x^n)^((-1/n^2)^(1/2)*2i))/(4*n*(-1/n^2)^(1/2) + 4i) -
(x^2*exp(a*1i)*(c*x^n)^((-1/n^2)^(1/2)*2i))/(4*n*(-1/n^2)^(1/2) - 4i)
```

3.29 $\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result . . . 327
Rubi [A] (verified) . . . 327
Mathematica [F] . . . 328
Maple [F] . . . 328
Fricas [C] (verification not implemented) . . . 329
Sympy [F] . . . 329
Maxima [A] (verification not implemented) . . . 329
Giac [A] (verification not implemented) . . . 329
Mupad [B] (verification not implemented) . . . 330

Optimal result

Integrand size = 19, antiderivative size = 82

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{4}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{\frac{1}{n}} - \frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{-1/n}\log(x)$$

```
[Out] 1/4*n*x*(c*x^n)^(1/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/2*exp(a*n*(-
1/n^2)^(1/2))*n*x*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 82, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {4571, 4577}

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{4}\sqrt{-\frac{1}{n^2}}nxe^{-a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}} - \frac{1}{2}\sqrt{-\frac{1}{n^2}}nxe^{a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}$$

```
[In] Int[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]],x]
```

```
[Out] (Sqrt[-n^(-2)]*n*x*(c*x^n)^n^(-1))/(4*E^(a*Sqrt[-n^(-2)]*n)) - (E^(a*Sqrt[-
n^(-2)]*n)*Sqrt[-n^(-2)]*n*x*Log[x])/(2*(c*x^n)^n^(-1))
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sin\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{n}\\
&= -\left(\frac{1}{2}\left(\sqrt{-\frac{1}{n^2}}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{a\sqrt{-\frac{1}{n^2}}n}}{x}-e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}\right)\,dx,x,cx^n\right)\right)\\
&= \frac{1}{4}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{\frac{1}{n}}-\frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{-1/n}\log(x)
\end{aligned}
$$

Mathematica [F]

$$\int\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]],x]
[Out] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]], x]
```

Maple [F]

$$\int\sin\left(a+\ln\left(c\,x^n\right)\sqrt{-\frac{1}{n^2}}\right)dx$$

```
[In] int(sin(a+ln(c*x^n)*(-1/n^2)^(1/2)),x)
[Out] int(sin(a+ln(c*x^n)*(-1/n^2)^(1/2)),x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.51

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{1}{4}\left(i\,x^2-2i\,e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="fricas")
[Out] 1/4*(I*x^2 - 2*I*e^(2*(I*a*n - log(c))/n)*log(x))*e^(-(I*a*n - log(c))/n)
```

Sympy [F]

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] integrate(sin(a+ln(c*x**n)*(-1/n**2)**(1/2)),x)
[Out] Integral(sin(a + sqrt(-1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 29, normalized size of antiderivative = 0.35

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{c^{\frac{2}{n}}x^2\sin\left(a\right)+2\,\log\left(x\right)\sin\left(a\right)}{4\,c^{\left(\frac{1}{n}\right)}}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="maxima")
[Out] 1/4*(c^(2/n)*x^2*sin(a) + 2*log(x)*sin(a))/c^(1/n)
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int \sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 27.92 (sec) , antiderivative size = 81, normalized size of antiderivative = 0.99

$$\int \sin \left(a+\sqrt{-\frac{1}{n^2}}\log \left(cx^n\right)\right)\,dx=-\frac{x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}}{2\,n\,\sqrt{-\frac{1}{n^2}}+2\mathrm{i}}-\frac{x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}{2\,n\,\sqrt{-\frac{1}{n^2}}-2\mathrm{i}}$$

```
[In] int(sin(a + log(c*x^n)*(-1/n^2)^(1/2)),x)
```

```
[Out] - (x*exp(-a*1i)/(c*x^n)^((-1/n^2)^(1/2)*1i))/(2*n*(-1/n^2)^(1/2) + 2i) - (x
*exp(a*1i)*(c*x^n)^((-1/n^2)^(1/2)*1i))/(2*n*(-1/n^2)^(1/2) - 2i)
```

3.30 $\int \frac{\sin(a)}{x} \, dx$

Optimal result . . . 331
Rubi [A] (verified) . . . 331
Mathematica [A] (verified) . . . 332
Maple [A] (verified) . . . 332
Fricas [A] (verification not implemented) . . . 332
Sympy [A] (verification not implemented) . . . 333
Maxima [A] (verification not implemented) . . . 333
Giac [A] (verification not implemented) . . . 333
Mupad [B] (verification not implemented) . . . 333

Optimal result

Integrand size = 6, antiderivative size = 5

$$\int \frac{\sin(a)}{x} \, dx = \log(x)\sin(a)$$

```
[Out] ln(x)*sin(a)
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.333, Rules used = {12, 29}

$$\int \frac{\sin(a)}{x} \, dx = \sin(a)\log(x)$$

```
[In] Int[Sin[a]/x,x]
[Out] Log[x]*Sin[a]
```

Rule 12

```
Int[(a_)*(u_), x_Symbol] :> Dist[a, Int[u, x], x] /; FreeQ[a, x] &&  !Match
Q[u, (b_)*(v_) /; FreeQ[b, x]]
```

Rule 29

```
Int[(x_)^(-1), x_Symbol] :> Simp[Log[x], x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \sin(a)\int \frac{1}{x} \, dx \\ &= \log(x)\sin(a) \end{aligned}$$

Mathematica [A] (verified)

Time = 0.00 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a)}{x}\,dx = \log(x)\sin(a)$$

```
[In] Integrate[Sin[a]/x,x]
[Out] Log[x]*Sin[a]
```

Maple [A] (verified)

Time = 0.04 (sec) , antiderivative size = 6, normalized size of antiderivative = 1.20

method	result	size
default	$\ln(x)\sin(a)$	6
norman	$\ln(x)\sin(a)$	6
risch	$\ln(x)\sin(a)$	6
parallelrisch	$\ln(x)\sin(a)$	6

```
[In] int(sin(a)/x,x,method=_RETURNVERBOSE)
[Out] ln(x)*sin(a)
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a)}{x}\,dx = \log(x)\sin(a)$$

```
[In] integrate(sin(a)/x,x, algorithm="fricas")
[Out] log(x)*sin(a)
```

Sympy [A] (verification not implemented)

Time = 0.02 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a)}{x} \, dx = \log(x)\sin(a)$$

```
[In] integrate(sin(a)/x,x)
[Out] log(x)*sin(a)
```

Maxima [A] (verification not implemented)

none

Time = 0.19 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a)}{x} \, dx = \log(x)\sin(a)$$

```
[In] integrate(sin(a)/x,x, algorithm="maxima")
[Out] log(x)*sin(a)
```

Giac [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 6, normalized size of antiderivative = 1.20

$$\int \frac{\sin(a)}{x} \, dx = \log(|x|)\sin(a)$$

```
[In] integrate(sin(a)/x,x, algorithm="giac")
[Out] log(abs(x))*sin(a)
```

Mupad [B] (verification not implemented)

Time = 26.23 (sec) , antiderivative size = 5, normalized size of antiderivative = 1.00

$$\int \frac{\sin(a)}{x} \, dx = \sin(a) \ln(x)$$

```
[In] int(sin(a)/x,x)
[Out] sin(a)*log(x)
```

3.31 $\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^2}\,dx$

Optimal result 334
Rubi [A] (verified) 334
Mathematica [F] 335
Maple [A] (verified) 336
Fricas [C] (verification not implemented) 336
Sympy [A] (verification not implemented) 336
Maxima [A] (verification not implemented) 337
Giac [F] 337
Mupad [F(-1)] 337

Optimal result

Integrand size = 23, antiderivative size = 86

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-1/n}}{4x}+\frac{e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{1}{n}}\log(x)}{2x}$$

```
[Out] 1/4*exp(a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x/((c*x^n)^(1/n))+1/2*n*(c*x^n
)^(1/n)*ln(x)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))/x
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.087, Rules used = {4581, 4577}

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{\sqrt{-\frac{1}{n^2}}ne^{a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-1/n}}{4x}+\frac{\sqrt{-\frac{1}{n^2}}ne^{-a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{\frac{1}{n}}}{2x}$$

```
[In] Int[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]/x^2,x]
```

```
[Out] (E^(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(4*x*(c*x^n)^n^(-1)) + (Sqrt[-n^(-2
)]*n*(c*x^n)^n^(-1)*Log[x])/(2*E^(a*Sqrt[-n^(-2)]*n)*x)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sin\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{nx} \\
&= \frac{\left(\sqrt{-\frac{1}{n^2}}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{-a\sqrt{-\frac{1}{n^2}}n}}{x}-e^{a\sqrt{-\frac{1}{n^2}}n}x^{-\frac{2+n}{n}}\right)dx,x,cx^n\right)}{2x} \\
&= \frac{e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-1/n}}{4x}+\frac{e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{1}{n}}\log(x)}{2x}
\end{aligned}$$

Mathematica [F]

$$\int\frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx=\int\frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]/x^2,x]
[Out] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]/x^2, x]
```

Maple [A] (verified)

Time = 2.75 (sec) , antiderivative size = 68, normalized size of antiderivative = 0.79

method	result	size
parallelrisch	$\frac{n\sqrt{-\frac{1}{n^2}}\,(n+\ln(c\,x^n))\cos\left(a+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)+\ln(c\,x^n)\sin\left(a+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)}{2xn}$	68

```
[In] int(sin(a+ln(c*x^n)*(-1/n^2)^(1/2))/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/2*(n*(-1/n^2)^(1/2)*(n+ln(c*x^n))*cos(a+ln(c*x^n)*(-1/n^2)^(1/2))+ln(c*x^
n)*sin(a+ln(c*x^n)*(-1/n^2)^(1/2)))/x/n
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.52

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{\left(2i\,x^2\log\left(x\right)+i\,e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}\right)e^{\left(-\frac{i\,an-\log(c)}{n}\right)}}{4\,x^2}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))/x^2,x, algorithm="fricas")
```

```
[Out] 1/4*(2*I*x^2*log(x) + I*e^(2*(I*a*n - log(c))/n))*e^(-(I*a*n - log(c))/n)/x
^2
```

Sympy [A] (verification not implemented)

Time = 1.58 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.24

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{n\sqrt{-\frac{1}{n^2}}\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2x} + \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2x} + \frac{\log\left(cx^n\right)\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2nx}$$

```
[In] integrate(sin(a+ln(c*x**n)*(-1/n**2)**(1/2))/x**2,x)
```

```
[Out] n*sqrt(-1/n**2)*cos(a + sqrt(-1/n**2)*log(c*x**n))/(2*x) + sqrt(-1/n**2)*lo
g(c*x**n)*cos(a + sqrt(-1/n**2)*log(c*x**n))/(2*x) + log(c*x**n)*sin(a + sq
rt(-1/n**2)*log(c*x**n))/(2*n*x)
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 33, normalized size of antiderivative = 0.38

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{2\,c^{\frac{2}{n}}x^2\log\left(x\right)\sin\left(a\right)-\sin\left(a\right)}{4\,c^{\left(\frac{1}{n}\right)}x^2}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))/x^2,x, algorithm="maxima")
[Out] 1/4*(2*c^(2/n)*x^2*log(x)*sin(a) - sin(a))/(c^(1/n)*x^2)
```

Giac [F]

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin\left(\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)}{x^2}\,dx$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))/x^2,x, algorithm="giac")
[Out] integrate(sin(sqrt(-1/n^2)*log(c*x^n) + a)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin\left(a+\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}\right)}{x^2}\,dx$$

```
[In] int(sin(a + log(c*x^n)*(-1/n^2)^(1/2))/x^2,x)
[Out] int(sin(a + log(c*x^n)*(-1/n^2)^(1/2))/x^2, x)
```

3.32 $\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx$

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Rubi [A] (verified) 338
Mathematica [F] 339
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Maxima [A] (verification not implemented) 341
Giac [F] 341
Mupad [F(-1)] 341

Optimal result

Integrand size = 24, antiderivative size = 88

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-2/n}}{8x^2} + \frac{e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{2/n}\log(x)}{2x^2}$$

```
[Out] 1/8*exp(a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x^2/((c*x^n)^(2/n))+1/2*n*(c*x
^n)^(2/n)*ln(x)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))/x^2
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used = {4581, 4577}

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{\sqrt{-\frac{1}{n^2}}ne^{a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-2/n}}{8x^2} + \frac{\sqrt{-\frac{1}{n^2}}ne^{-a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{2/n}}{2x^2}$$

```
[In] Int[Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]]/x^3,x]
```

```
[Out] (E^(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(8*x^2*(c*x^n)^(2/n)) + (Sqrt[-n^(-
2)]*n*(c*x^n)^(2/n)*Log[x])/(2*E^(a*Sqrt[-n^(-2)]*n)*x^2)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{\left(\sqrt{-\frac{1}{n^2}}(cx^n)^{2/n}\right)\text{Subst}\left(\int\left(\frac{e^{-a\sqrt{-\frac{1}{n^2}}n}}{x}-e^{a\sqrt{-\frac{1}{n^2}}n}x^{-\frac{4+n}{n}}\right)dx,x,cx^n\right)}{2x^2}\\
&= \frac{e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-2/n}}{8x^2}+\frac{e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{2/n}\log(x)}{2x^2}
\end{aligned}$$

Mathematica [F]

$$\int\frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx=\int\frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx$$

```
[In] Integrate[Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]]/x^3,x]
[Out] Integrate[Sin[a + 2*Sqrt[-n^(-2)]*Log[c*x^n]]/x^3, x]
```

Maple [A] (verified)

Time = 4.85 (sec) , antiderivative size = 119, normalized size of antiderivative = 1.35

method	result	size
parallelrisch	$\frac{-\sqrt{-\frac{1}{n^2}}\,\tan\left(\frac{a}{2}+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)^2\ln(c\,x^n)n+(-n+2\ln(c\,x^n))\tan\left(\frac{a}{2}+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)+\sqrt{-\frac{1}{n^2}}\,\ln(c\,x^n)n}{2x^2n\left(1+\tan\left(\frac{a}{2}+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)^2\right)}$	119

```
[In] int(sin(a+2*ln(c*x^n)*(-1/n^2)^(1/2))/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/2*(-(-1/n^2)^(1/2)*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2*ln(c*x^n)*n+(-n+
2*ln(c*x^n))*tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))+(-1/n^2)^(1/2)*ln(c*x^n)*n
)/x^2/n/(1+tan(1/2*a+ln(c*x^n)*(-1/n^2)^(1/2))^2)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.51

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{\left(4i\,x^4\log\left(x\right)+i\,e^{\left(\frac{2\,(i\,an-2\,\log(c))}{n}\right)}\right)e^{\left(-\frac{i\,an-2\,\log(c)}{n}\right)}}{8\,x^4}$$

```
[In] integrate(sin(a+2*log(c*x^n)*(-1/n^2)^(1/2))/x^3,x, algorithm="fricas")
```

```
[Out] 1/8*(4*I*x^4*log(x) + I*e^(2*(I*a*n - 2*log(c))/n))*e^(-(I*a*n - 2*log(c))/
n)/x^4
```

Sympy [A] (verification not implemented)

Time = 5.41 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.33

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{n\sqrt{-\frac{1}{n^2}}\cos\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4x^2} + \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\cos\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2x^2} + \frac{\log\left(cx^n\right)\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2nx^2}$$

```
[In] integrate(sin(a+2*ln(c*x**n)*(-1/n**2)**(1/2))/x**3,x)
```

```
[Out] n*sqrt(-1/n**2)*cos(a + 2*sqrt(-1/n**2)*log(c*x**n))/(4*x**2) + sqrt(-1/n**
2)*log(c*x**n)*cos(a + 2*sqrt(-1/n**2)*log(c*x**n))/(2*x**2) + log(c*x**n)*
sin(a + 2*sqrt(-1/n**2)*log(c*x**n))/(2*n*x**2)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.40

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{4\,c^{\frac{4}{n}}x^4\log\left(x\right)\sin\left(a\right)-\sin\left(a\right)}{8\,c^{\frac{2}{n}}x^4}$$

```
[In] integrate(sin(a+2*log(c*x^n)*(-1/n^2)^(1/2))/x^3,x, algorithm="maxima")
[Out] 1/8*(4*c^(4/n)*x^4*log(x)*sin(a) - sin(a))/(c^(2/n)*x^4)
```

Giac [F]

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sin\left(2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)}{x^3}\,dx$$

```
[In] integrate(sin(a+2*log(c*x^n)*(-1/n^2)^(1/2))/x^3,x, algorithm="giac")
[Out] integrate(sin(2*sqrt(-1/n^2)*log(c*x^n) + a)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin\left(a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sin\left(a+2\,\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}\right)}{x^3}\,dx$$

```
[In] int(sin(a + 2*log(c*x^n)*(-1/n^2)^(1/2))/x^3,x)
[Out] int(sin(a + 2*log(c*x^n)*(-1/n^2)^(1/2))/x^3, x)
```

3.33 $\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$

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Mathematica [F] . . . 343
Maple [F] . . . 344
Fricas [C] (verification not implemented) . . . 344
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Maxima [A] (verification not implemented) . . . 345
Giac [C] (verification not implemented) . . . 345
Mupad [B] (verification not implemented) . . . 346

Optimal result

Integrand size = 33, antiderivative size = 117

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{x^{1+m}}{2(1+m)}-\frac{e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{8(1+m)}-\frac{1}{4}e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)$$

```
[Out] 1/2*x^(1+m)/(1+m)-1/8*x^(1+m)*(c*x^n)^((1+m)/n)/exp(2*a*n*(-(1+m)^2/n^2)^(1
/2)/(1+m))/(1+m)-1/4*exp(2*a*n*(-(1+m)^2/n^2)^(1/2)/(1+m))*x^(1+m)*ln(x)/((
c*x^n)^((1+m)/n))
```

Rubi [A] (verified)

Time = 0.18 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.061, Rules used = {4581, 4577}

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{x^{m+1}e^{-\frac{2an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}(cx^n)^{\frac{m+1}{n}}}{8(m+1)}-\frac{1}{4}x^{m+1}\log(x)e^{\frac{2an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}(cx^n)^{-\frac{m+1}{n}}+\frac{x^{m+1}}{2(m+1)}$$

```
[In] Int[x^m*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2,x]
```

```
[Out] x^(1 + m)/(2*(1 + m)) - (x^(1 + m)*(c*x^n)^((1 + m)/n))/(8*E^((2*a*Sqrt[-((
1 + m)^2/n^2)]*n)/(1 + m))*(1 + m)) - (E^((2*a*Sqrt[-((1 + m)^2/n^2)]*n)/(1
 + m))*x^(1 + m)*Log[x])/(4*(c*x^n)^((1 + m)/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(x)\right)dx,x,cx^n\right)}{n}$$

$$= -\frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}}{x}-2x^{-1+\frac{1+m}{n}}+e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{-1+\frac{2(1+m)}{n}}\right)dx,x,cx^n\right)}{4n}$$

$$= \frac{x^{1+m}}{2(1+m)}-\frac{e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{8(1+m)}-\frac{1}{4}e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)$$

Mathematica [F]

$$\int x^m\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx=\int x^m\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx$$

```
[In] Integrate[x^m*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2,x]
[Out] Integrate[x^m*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2, x]
```

Maple [F]

$$\int x^{m}\sin\left(a+\frac{\ln\left(c\,x^{n}\right)\sqrt{-\frac{(1+m)^{2}}{n^{2}}}}{2}\right)^{2}dx$$

```
[In] int(x^m*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x)
```

```
[Out] int(x^m*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 107, normalized size of antiderivative = 0.91

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{\left(2\,(m+1)e^{\left(-\frac{2\,((m+1)n\log(x)-2i\,an+(m+1)\log(c))}{n}\right)}\log\left(x\right)-4\,e^{\left(-\frac{(m+1)n\log(x)-2i\,an+(m+1)\log(c)}{n}\right)}+1\right)e^{\left(\frac{2\,((m+1)n\log(x)-2i\,a}{n}\right.}}{8\,(m+1)}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="fr
icas")
```

```
[Out] -1/8*(2*(m + 1)*e^(-2*((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n)*log(
x) - 4*e^(-((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) + 1)*e^(2*((m +
 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n + (2*I*a*n - (m + 1)*log(c))/n)/
(m + 1)
```

Sympy [F]

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \int x^{m}\sin^{2}\left(a+\frac{\sqrt{-\frac{m^{2}}{n^{2}}-\frac{2m}{n^{2}}-\frac{1}{n^{2}}}\log\left(cx^{n}\right)}{2}\right)\,dx$$

```
[In] integrate(x**m*sin(a+1/2*ln(c*x**n)*(-(1+m)**2/n**2)**(1/2))**2,x)
```

```
[Out] Integral(x**m*sin(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)/2)**
2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 173, normalized size of antiderivative = 1.48

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$$
$$=\frac{4\left(\cos(2a)^2+\sin(2a)^2\right)c^{\frac{m}{n}+\frac{1}{n}}xx^m-c^{\frac{2m}{n}+\frac{2}{n}}x\cos(2a)\,e^{\left(m\log(x)+\frac{m\log(x^n)}{n}+\frac{\log(x^n)}{n}\right)}-2\left(\cos(2a)^3+\cos(2a\right.}{8\left(\left(\cos(2a)^2+\sin(2a)^2\right)c^{\frac{m}{n}+\frac{1}{n}}m+\left(\cos(2a)^2+\sin(2a)^2\right.\right.}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="ma
xima")
```

```
[Out] 1/8*(4*(cos(2*a)^2 + sin(2*a)^2)*c^(m/n + 1/n)*x*x^m - c^(2*m/n + 2/n)*x*co
s(2*a)*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n) - 2*(cos(2*a)^3 + cos(2*a)*
sin(2*a)^2 + (cos(2*a)^3 + cos(2*a)*sin(2*a)^2)*m)*log(x))/((cos(2*a)^2 + s
in(2*a)^2)*c^(m/n + 1/n)*m + (cos(2*a)^2 + sin(2*a)^2)*c^(m/n + 1/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 3.37 (sec) , antiderivative size = 498, normalized size of antiderivative = 4.26

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx =$$
$$-\frac{m^2n^2xx^me^{\left(2ia-\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}+m^2n^2xx^me^{\left(-2ia+\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}-2m^2n^2xx^m+2mn}{}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="gi
ac")
```

```
[Out] -1/4*(m^2*n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c)
)/n^2) + m^2*n^2*x*x^m*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*lo
g(c))/n^2) - 2*m^2*n^2*x*x^m + 2*m*n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log
(x) + abs(m*n + n)*log(c))/n^2) + m*n*x*x^m*abs(m*n + n)*e^(2*I*a - (n*abs(
m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 2*m*n^2*x*x^m*e^(-2*I*a + (n*
abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - m*n*x*x^m*abs(m*n + n)*e^
(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 4*m*n^2*x*x^
m + n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2)
 + n*x*x^m*abs(m*n + n)*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*lo
g(c))/n^2) + n^2*x*x^m*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*lo
g(c))/n^2) - n*x*x^m*abs(m*n + n)*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(
m*n + n)*log(c))/n^2) + 2*(m*n + n)^2*x*x^m - 2*n^2*x*x^m)/(m^3*n^2 + 3*m^2
*n^2 - (m*n + n)^2*m + 3*m*n^2 - (m*n + n)^2 + n^2)
```

Mupad [B] (verification not implemented)

Time = 28.00 (sec) , antiderivative size = 145, normalized size of antiderivative = 1.24

$$\int x^m \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$$
$$=\frac{x\,x^m}{2\,m+2}-\frac{x\,x^m\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{(c\,x^n)^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}}{4\,m+4-n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,4\mathrm{i}}-\frac{x\,x^m\,\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}{4\,m+4+n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,4\mathrm{i}}$$

```
[In] int(x^m*sin(a + (log(c*x^n)*(-(m + 1)^2/n^2)^(1/2))/2)^2,x)
```

```
[Out] (x*x^m)/(2*m + 2) - (x*x^m*exp(-a*2i)/(c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n
^2)^(1/2)*1i))/(4*m - n*(-(m + 1)^2/n^2)^(1/2)*4i + 4) - (x*x^m*exp(a*2i)*(
c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i))/(4*m + n*(-(m + 1)^2/n^2
)^(1/2)*4i + 4)
```

3.34 $\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx$

Optimal result . . . 347
Rubi [A] (verified) . . . 347
Mathematica [F] . . . 348
Maple [F] . . . 348
Fricas [C] (verification not implemented) . . . 349
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Giac [A] (verification not implemented) . . . 350
Mupad [B] (verification not implemented) . . . 350

Optimal result

Integrand size = 28, antiderivative size = 76

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx = \frac{x^3}{6}-\frac{1}{24}e^{-2a\sqrt{-\frac{1}{n^2}}n}x^3\left(cx^n\right)^{3/n} - \frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x^3\left(cx^n\right)^{-3/n}\log(x)$$

```
[Out] 1/6*x^3-1/24*x^3*(c*x^n)^(3/n)/exp(2*a*n*(-1/n^2)^(1/2))-1/4*exp(2*a*n*(-1/
n^2)^(1/2))*x^3*ln(x)/((c*x^n)^(3/n))
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 76, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used = {4581, 4577}

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx = -\frac{1}{24}x^3e^{-2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{3/n} - \frac{1}{4}x^3e^{2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-3/n}+\frac{x^3}{6}$$

```
[In] Int[x^2*Sin[a + (3*Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
```

```
[Out] x^3/6 - (x^3*(c*x^n)^(3/n))/(24*E^(2*a*Sqrt[-n^(-2)]*n)) - (E^(2*a*Sqrt[-n^
(-2)]*n)*x^3*Log[x])/(4*(c*x^n)^(3/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
```

```
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}\\
&= -\frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int\left(\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}}{x}-2x^{-1+\frac{3}{n}}+e^{-2a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{6}{n}}\right)dx, x, cx^n\right)}{4n}\\
&= \frac{x^3}{6}-\frac{1}{24}e^{-2a\sqrt{-\frac{1}{n^2}}n}x^3(cx^n)^{3/n}-\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x^3(cx^n)^{-3/n}\log(x)
\end{aligned}$$

Mathematica [F]

$$\int x^2\sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x^2\sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] Integrate[x^2*Sin[a + (3*Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
[Out] Integrate[x^2*Sin[a + (3*Sqrt[-n^(-2)]*Log[c*x^n])/2]^2, x]
```

Maple [F]

$$\int x^2\sin\left(a+\frac{3\ln\left(c\,x^n\right)\sqrt{-\frac{1}{n^2}}}{2}\right)^2dx$$

```
[In] int(x^2*sin(a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
[Out] int(x^2*sin(a+3/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.78

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$$
$$=-\frac{1}{24}\left(x^6-4\,x^3e^{\left(\frac{2i\,an-3\,\log(c)}{n}\right)}+6\,e^{\left(\frac{2\,(2i\,an-3\,\log(c))}{n}\right)}\log(x)\right)e^{\left(-\frac{2i\,an-3\,\log(c)}{n}\right)}$$

```
[In] integrate(x^2*sin(a+3/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="fricas")
[Out] -1/24*(x^6 - 4*x^3*e^((2*I*a*n - 3*log(c))/n) + 6*e^(2*(2*I*a*n - 3*log(c))
/n)*log(x))*e^(-(2*I*a*n - 3*log(c))/n)
```

Sympy [F]

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=\int x^2\sin^2\left(a+\frac{3\sqrt{-\frac{1}{n^2}}\log(cx^n)}{2}\right)\,dx$$

```
[In] integrate(x**2*sin(a+3/2*ln(c*x**n)*(-1/n**2)**(1/2))**2,x)
[Out] Integral(x**2*sin(a + 3*sqrt(-1/n**2)*log(c*x**n)/2)**2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 47, normalized size of antiderivative = 0.62

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=-\frac{c^{\frac{6}{n}}x^6\cos(2\,a)-4\,c^{\frac{3}{n}}x^3+6\,\cos(2\,a)\log(x)}{24\,c^{\frac{3}{n}}}$$

```
[In] integrate(x^2*sin(a+3/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="maxima")
[Out] -1/24*(c^(6/n)*x^6*cos(2*a) - 4*c^(3/n)*x^3 + 6*cos(2*a)*log(x))/c^(3/n)
```

Giac [A] (verification not implemented)

none

Time = 0.77 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(x^2*sin(a+3/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 26.81 (sec) , antiderivative size = 92, normalized size of antiderivative = 1.21

$$\int x^2 \sin^2\left(a+\frac{3}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x^3}{6}-\frac{x^3\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,3\mathrm{i}}}\,1\mathrm{i}}{12\,n\,\sqrt{-\frac{1}{n^2}}+12\mathrm{i}}+\frac{x^3\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,3\mathrm{i}}\,1\mathrm{i}}{12\,n\,\sqrt{-\frac{1}{n^2}}-12\mathrm{i}}$$

```
[In] int(x^2*sin(a + (3*log(c*x^n)*(-1/n^2)^(1/2))/2)^2,x)
[Out] x^3/6 - (x^3*exp(-a*2i)/(c*x^n)^((-1/n^2)^(1/2)*3i)*1i)/(12*n*(-1/n^2)^(1/2
) + 12i) + (x^3*exp(a*2i)*(c*x^n)^((-1/n^2)^(1/2)*3i)*1i)/(12*n*(-1/n^2)^(1
/2) - 12i)
```

3.35 $\int x \sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 351
Rubi [A] (verified) 351
Mathematica [F] 352
Maple [F] 352
Fricas [C] (verification not implemented) 353
Sympy [F] 353
Maxima [A] (verification not implemented) 353
Giac [A] (verification not implemented) 354
Mupad [B] (verification not implemented) 354

Optimal result

Integrand size = 23, antiderivative size = 76

$$\int x \sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x^2}{4}-\frac{1}{16}e^{-2a\sqrt{-\frac{1}{n^2}}n}x^2\left(cx^n\right)^{2/n}-\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x^2\left(cx^n\right)^{-2/n}\log(x)$$

```
[Out] 1/4*x^2-1/16*x^2*(c*x^n)^(2/n)/exp(2*a*n*(-1/n^2)^(1/2))-1/4*exp(2*a*n*(-1/
n^2)^(1/2))*x^2*ln(x)/((c*x^n)^(2/n))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 76, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.087, Rules used = {4581, 4577}

$$\int x \sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-\frac{1}{16}x^2e^{-2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{2/n}-\frac{1}{4}x^2e^{2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-2/n}+\frac{x^2}{4}$$

```
[In] Int[x*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2,x]
```

```
[Out] x^2/4 - (x^2*(c*x^n)^(2/n))/(16*E^(2*a*Sqrt[-n^(-2)]*n)) - (E^(2*a*Sqrt[-n^
(-2)]*n)*x^2*Log[x])/(4*(c*x^n)^(2/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
```

```
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)dx,x,cx^n\right)}{n}$$

$$= -\frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int\left(\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}}{x}-2x^{-1+\frac{2}{n}}+e^{-2a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{n}}\right)dx,x,cx^n\right)}{4n}$$

$$= \frac{x^2}{4}-\frac{1}{16}e^{-2a\sqrt{-\frac{1}{n^2}}n}x^2(cx^n)^{2/n}-\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x^2(cx^n)^{-2/n}\log(x)$$

Mathematica [F]

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx=\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx$$

```
[In] Integrate[x*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2,x]
[Out] Integrate[x*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2, x]
```

Maple [F]

$$\int x\sin\left(a+\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}\right)^2dx$$

```
[In] int(x*sin(a+ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
[Out] int(x*sin(a+ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 60, normalized size of antiderivative = 0.79

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=-\frac{1}{16}\left(x^4-4\,x^2e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}+4\,e^{\left(\frac{4\,(i\,an-\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{2\,(i\,an-\log(c))}{n}\right)}$$

```
[In] integrate(x*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="fricas")
[Out] -1/16*(x^4 - 4*x^2*e^(2*(I*a*n - log(c))/n) + 4*e^(4*(I*a*n - log(c))/n)*lo
g(x))*e^(-2*(I*a*n - log(c))/n)
```

Sympy [F]

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] integrate(x*sin(a+ln(c*x**n)*(-1/n**2)**(1/2))**2,x)
[Out] Integral(x*sin(a + sqrt(-1/n**2)*log(c*x**n))**2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 47, normalized size of antiderivative = 0.62

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-\frac{c^{\frac{4}{n}}x^4\cos\left(2\,a\right)-4\,c^{\frac{2}{n}}x^2+4\,\cos\left(2\,a\right)\log\left(x\right)}{16\,c^{\frac{2}{n}}}$$

```
[In] integrate(x*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="maxima")
[Out] -1/16*(c^(4/n)*x^4*cos(2*a) - 4*c^(2/n)*x^2 + 4*cos(2*a)*log(x))/c^(2/n)
```

Giac [A] (verification not implemented)

none

Time = 0.74 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(x*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 28.61 (sec) , antiderivative size = 92, normalized size of antiderivative = 1.21

$$\int x\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x^2}{4}-\frac{x^2\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{\left(c\,x^n\right)^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}}\,1\mathrm{i}}{8\,n\,\sqrt{-\frac{1}{n^2}}+8\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,2\mathrm{i}}\,\left(c\,x^n\right)^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}\,1\mathrm{i}}{8\,n\,\sqrt{-\frac{1}{n^2}}-8\mathrm{i}}$$

```
[In] int(x*sin(a + log(c*x^n)*(-1/n^2)^(1/2))^2,x)
[Out] x^2/4 - (x^2*exp(-a*2i)/(c*x^n)^((-1/n^2)^(1/2)*2i)*1i)/(8*n*(-1/n^2)^(1/2)
 + 8i) + (x^2*exp(a*2i)*(c*x^n)^((-1/n^2)^(1/2)*2i)*1i)/(8*n*(-1/n^2)^(1/2)
 - 8i)
```

3.36 $\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 355
Rubi [A] (verified) 355
Mathematica [F] 356
Maple [F] 356
Fricas [C] (verification not implemented) 357
Sympy [F] 357
Maxima [A] (verification not implemented) 357
Giac [A] (verification not implemented) 358
Mupad [B] (verification not implemented) 358

Optimal result

Integrand size = 24, antiderivative size = 68

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x}{2}-\frac{1}{8}e^{-2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}-\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

```
[Out] 1/2*x-1/8*x*(c*x^n)^(1/n)/exp(2*a*n*(-1/n^2)^(1/2))-1/4*exp(2*a*n*(-1/n^2)^
(1/2))*x*ln(x)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used = {4571, 4577}

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-\frac{1}{8}xe^{-2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}}-\frac{1}{4}xe^{2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}+\frac{x}{2}$$

```
[In] Int[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
```

```
[Out] x/2 - (x*(c*x^n)^n^(-1))/(8*E^(2*a*Sqrt[-n^(-2)]*n)) - (E^(2*a*Sqrt[-n^(-2)
]*n)*x*Log[x])/(4*(c*x^n)^n^(-1))
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
```

```
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(x)\right)dx, x, cx^n\right)}{n}$$

$$= -\frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}}{x}-2x^{-1+\frac{1}{n}}+e^{-2a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}\right)dx, x, cx^n\right)}{4n}$$

$$= \frac{x}{2}-\frac{1}{8}e^{-2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}-\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

Mathematica [F]

$$\int\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx=\int\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx$$

```
[In] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
[Out] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2, x]
```

Maple [F]

$$\int\sin\left(a+\frac{\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}}{2}\right)^2dx$$

```
[In] int(sin(a+1/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
[Out] int(sin(a+1/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.84

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = -\frac{1}{8}\left(x^2-4\,xe^{\left(\frac{2i\,an-\log(c)}{n}\right)}+2\,e^{\left(\frac{2\,(2i\,an-\log(c))}{n}\right)}\log(x)\right)e^{\left(-\frac{2i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="fricas")
[Out] -1/8*(x^2 - 4*x*e^((2*I*a*n - log(c))/n) + 2*e^(2*(2*I*a*n - log(c))/n)*log
(x))*e^(-(2*I*a*n - log(c))/n)
```

Sympy [F]

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = \int \sin^2\left(a+\frac{\sqrt{-\frac{1}{n^2}}\log(cx^n)}{2}\right)\,dx$$

```
[In] integrate(sin(a+1/2*ln(c*x**n)*(-1/n**2)**(1/2))**2,x)
[Out] Integral(sin(a + sqrt(-1/n**2)*log(c*x**n)/2)**2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.60

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = -\frac{c^{\frac{2}{n}}x^2\cos(2\,a)-4\,c^{\left(\frac{1}{n}\right)}x+2\,\cos(2\,a)\log(x)}{8\,c^{\left(\frac{1}{n}\right)}}$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="maxima")
[Out] -1/8*(c^(2/n)*x^2*cos(2*a) - 4*c^(1/n)*x + 2*cos(2*a)*log(x))/c^(1/n)
```

Giac [A] (verification not implemented)

none

Time = 0.57 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 27.21 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.26

$$\int \sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x}{2}-\frac{x\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}\,1\mathrm{i}}{4\,n\,\sqrt{-\frac{1}{n^2}}+4\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}\,1\mathrm{i}}{4\,n\,\sqrt{-\frac{1}{n^2}}-4\mathrm{i}}$$

```
[In] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/2)^2,x)
[Out] x/2 - (x*exp(-a*2i)/(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(4*n*(-1/n^2)^(1/2) + 4
i) + (x*exp(a*2i)*(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(4*n*(-1/n^2)^(1/2) - 4i)
```

3.37 $\int \frac{\sin^2(a)}{x} \, dx$

Optimal result 359
Rubi [A] (verified) 359
Mathematica [A] (verified) 360
Maple [A] (verified) 360
Fricas [A] (verification not implemented) 360
Sympy [A] (verification not implemented) 361
Maxima [A] (verification not implemented) 361
Giac [A] (verification not implemented) 361
Mupad [B] (verification not implemented) 361

Optimal result

Integrand size = 8, antiderivative size = 7

$$\int \frac{\sin^2(a)}{x} \, dx = \log(x) \sin^2(a)$$

```
[Out] ln(x)*sin(a)^2
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.250, Rules used = {12, 29}

$$\int \frac{\sin^2(a)}{x} \, dx = \sin^2(a) \log(x)$$

```
[In] Int[Sin[a]^2/x,x]
```

```
[Out] Log[x]*Sin[a]^2
```

Rule 12

```
Int[(a_)*(u_), x_Symbol] :> Dist[a, Int[u, x], x] /; FreeQ[a, x] &&  !Match
Q[u, (b_)*(v_) /; FreeQ[b, x]]
```

Rule 29

```
Int[(x_)^(-1), x_Symbol] :> Simp[Log[x], x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \sin^2(a) \int \frac{1}{x}\,dx \\ &= \log(x)\sin^2(a) \end{aligned}$$

Mathematica [A] (verified)

Time = 0.00 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^2(a)}{x}\,dx = \log(x)\sin^2(a)$$

```
[In] Integrate[Sin[a]^2/x,x]
[Out] Log[x]*Sin[a]^2
```

Maple [A] (verified)

Time = 0.04 (sec) , antiderivative size = 8, normalized size of antiderivative = 1.14

method	result	size
default	$\ln(x)\sin(a)^2$	8
norman	$\ln(x)\sin(a)^2$	8
risch	$\ln(x)\sin(a)^2$	8
parallelrisch	$\ln(x)\sin(a)^2$	8

```
[In] int(sin(a)^2/x,x,method=_RETURNVERBOSE)
[Out] ln(x)*sin(a)^2
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 10, normalized size of antiderivative = 1.43

$$\int \frac{\sin^2(a)}{x}\,dx = -\left(\cos(a)^2 - 1\right)\log(x)$$

```
[In] integrate(sin(a)^2/x,x, algorithm="fricas")
[Out] -(cos(a)^2 - 1)*log(x)
```

Sympy [A] (verification not implemented)

Time = 0.02 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^2(a)}{x}\,dx = \log(x)\sin^2(a)$$

```
[In] integrate(sin(a)**2/x,x)
[Out] log(x)*sin(a)**2
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^2(a)}{x}\,dx = \log(x)\sin(a)^2$$

```
[In] integrate(sin(a)^2/x,x, algorithm="maxima")
[Out] log(x)*sin(a)^2
```

Giac [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 8, normalized size of antiderivative = 1.14

$$\int \frac{\sin^2(a)}{x}\,dx = \log(|x|)\sin(a)^2$$

```
[In] integrate(sin(a)^2/x,x, algorithm="giac")
[Out] log(abs(x))*sin(a)^2
```

Mupad [B] (verification not implemented)

Time = 0.03 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^2(a)}{x}\,dx = \sin(a)^2\,\ln(x)$$

```
[In] int(sin(a)^2/x,x)
[Out] sin(a)^2*log(x)
```

3.38 $\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^2}\,dx$

Optimal result 362
Rubi [A] (verified) 362
Mathematica [F] 363
Maple [B] (verified) 363
Fricas [C] (verification not implemented) 364
Sympy [A] (verification not implemented) 364
Maxima [A] (verification not implemented) 365
Giac [F] 365
Mupad [F(-1)] 365

Optimal result

Integrand size = 28, antiderivative size = 74

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx=-\frac{1}{2x}+\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-1/n}}{8x}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{\frac{1}{n}}\log(x)}{4x}$$

```
[Out] -1/2/x+1/8*exp(2*a*n*(-1/n^2)^(1/2))/x/((c*x^n)^(1/n))-1/4*(c*x^n)^(1/n)*ln
(x)/exp(2*a*n*(-1/n^2)^(1/2))/x
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used = {4581, 4577}

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx=\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-1/n}}{8x}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{\frac{1}{n}}}{4x}-\frac{1}{2x}$$

```
[In] Int[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2/x^2,x]
```

```
[Out] -1/2*1/x + E^(2*a*Sqrt[-n^(-2)]*n)/(8*x*(c*x^n)^n^(-1)) - ((c*x^n)^n^(-1)*L
og[x])/(4*E^(2*a*Sqrt[-n^(-2)]*n)*x)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
```

```
+ 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{nx}$$

$$= -\frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int\left(\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}}{x}-2x^{-\frac{1+n}{n}}+e^{2a\sqrt{-\frac{1}{n^2}}n}x^{-\frac{2+n}{n}}\right)dx,x,cx^n\right)}{4nx}$$

$$= -\frac{1}{2x}+\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-1/n}}{8x}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}}\log(x)}{4x}$$

Mathematica [F]

$$\int\frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx=\int\frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2/x^2,x]
[Out] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2/x^2, x]
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 198 vs. $2(64) = 128$.

Time = 10.82 (sec) , antiderivative size = 199, normalized size of antiderivative = 2.69

method	result
parallelrisch	$\frac{(-8n-3\ln(cx^n))\tan\left(\frac{a}{2}+\sqrt{-\frac{1}{n^2}}\,\ln\left((cx^n)^{\frac{1}{4}}\right)\right)^4-20n\left(n+\frac{3\ln(cx^n)}{5}\right)\sqrt{-\frac{1}{n^2}}\tan\left(\frac{a}{2}+\sqrt{-\frac{1}{n^2}}\,\ln\left((cx^n)^{\frac{1}{4}}\right)\right)^3+18\tan\left(\frac{a}{2}+\sqrt{-\right.}{12xn\left(1+\tan\left(\frac{a}{2}+\sqrt{-\frac{1}{n^2}}\,\ln\left((cx\right.\right.\right.}$

```
[In] int(sin(a+1/2*ln(c*x^n)*(-1/n^2)^(1/2))^2/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/12*((-8*n-3*ln(c*x^n))*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/4)))^4-20*n
*(n+3/5*ln(c*x^n))*(-1/n^2)^(1/2)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/4)
))^3+18*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/4)))^2*ln(c*x^n)+20*n*(n+3/5
*ln(c*x^n))*(-1/n^2)^(1/2)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/4)))-8*n-
3*ln(c*x^n))/x/n/(1+tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/4)))^2)^2
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 62, normalized size of antiderivative = 0.84

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{\left(2\,x^2\log\left(x\right)+4\,xe^{\left(\frac{2i\,an-\log(c)}{n}\right)}-e^{\left(\frac{2\,(2i\,an-\log(c))}{n}\right)}\right)e^{\left(-\frac{2i\,an-\log(c)}{n}\right)}}{8\,x^2}$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2/x^2,x, algorithm="fricas")
```

```
[Out] -1/8*(2*x^2*log(x) + 4*x*e^((2*I*a*n - log(c))/n) - e^(2*(2*I*a*n - log(c))
/n))*e^(-(2*I*a*n - log(c))/n)/x^2
```

Sympy [A] (verification not implemented)

Time = 11.56 (sec) , antiderivative size = 105, normalized size of antiderivative = 1.42

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\sin\left(2a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4x} + \frac{\cos\left(2a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4x} - \frac{1}{2x} - \frac{\log\left(cx^n\right)\cos\left(2a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4nx}$$

```
[In] integrate(sin(a+1/2*ln(c*x**n)*(-1/n**2)**(1/2))**2/x**2,x)
```

```
[Out] sqrt(-1/n**2)*log(c*x**n)*sin(2*a + sqrt(-1/n**2)*log(c*x**n))/(4*x) + cos(
2*a + sqrt(-1/n**2)*log(c*x**n))/(4*x) - 1/(2*x) - log(c*x**n)*cos(2*a + sq
rt(-1/n**2)*log(c*x**n))/(4*n*x)
```

Maxima [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.65

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{2\,c^{\frac{2}{n}}x^3\cos\left(2\,a\right)\log\left(x\right)+4\,c^{\left(\frac{1}{n}\right)}x^2-x\cos\left(2\,a\right)}{8\,c^{\left(\frac{1}{n}\right)}x^3}$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2/x^2,x, algorithm="maxima")
[Out] -1/8*(2*c^(2/n)*x^3*cos(2*a)*log(x) + 4*c^(1/n)*x^2 - x*cos(2*a))/(c^(1/n)*
x^3)
```

Giac [F]

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin\left(\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)^2}{x^2}\,dx$$

```
[In] integrate(sin(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2/x^2,x, algorithm="giac")
[Out] integrate(sin(1/2*sqrt(-1/n^2)*log(c*x^n) + a)^2/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin\left(a+\frac{\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}}{2}\right)^2}{x^2}\,dx$$

```
[In] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/2)^2/x^2,x)
[Out] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/2)^2/x^2, x)
```

3.39 $\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx$

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Optimal result

Integrand size = 25, antiderivative size = 76

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx=-\frac{1}{4x^2}+\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-2/n}}{16x^2}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{2/n}\log(x)}{4x^2}$$

```
[Out] -1/4/x^2+1/16*exp(2*a*n*(-1/n^2)^(1/2))/x^2/((c*x^n)^(2/n))-1/4*(c*x^n)^(2/
n)*ln(x)/exp(2*a*n*(-1/n^2)^(1/2))/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 76, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.080, Rules used = {4581, 4577}

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx=\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-2/n}}{16x^2}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{2/n}}{4x^2}-\frac{1}{4x^2}$$

```
[In] Int[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2/x^3,x]
```

```
[Out] -1/4*1/x^2 + E^(2*a*Sqrt[-n^(-2)]*n)/(16*x^2*(c*x^n)^(2/n)) - ((c*x^n)^(2/n
)*Log[x])/(4*E^(2*a*Sqrt[-n^(-2)]*n)*x^2)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
```

```
+ 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{nx^2}\\
&= -\frac{(cx^n)^{2/n}\,\text{Subst}\left(\int\left(\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}}{x}-2x^{-\frac{2+n}{n}}+e^{2a\sqrt{-\frac{1}{n^2}}n}x^{-\frac{4+n}{n}}\right)\,dx, x, cx^n\right)}{4nx^2}\\
&= -\frac{1}{4x^2}+\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-2/n}}{16x^2}-\frac{e^{-2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{2/n}\log(x)}{4x^2}
\end{aligned}$$

Mathematica [F]

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx$$

```
[In] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2/x^3,x]
[Out] Integrate[Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^2/x^3, x]
```

Maple [A] (verified)

Time = 21.96 (sec) , antiderivative size = 80, normalized size of antiderivative = 1.05

method	result	size
parallelrisch	$\frac{(n-2\ln(c\,x^n))\cos\left(2\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}+2a\right)+2\sqrt{-\frac{1}{n^2}}\,\ln(c\,x^n)n\sin\left(2\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}+2a\right)-2n}{8x^2n}$	80

```
[In] int(sin(a+ln(c*x^n)*(-1/n^2)^(1/2))^2/x^3,x,method=_RETURNVERBOSE)
[Out] 1/8*((n-2*ln(c*x^n))*cos(2*ln(c*x^n)*(-1/n^2)^(1/2)+2*a)+2*(-1/n^2)^(1/2)*l
n(c*x^n)*n*sin(2*ln(c*x^n)*(-1/n^2)^(1/2)+2*a)-2*n)/x^2/n
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 65, normalized size of antiderivative = 0.86

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = -\frac{\left(4\,x^4\log\left(x\right)+4\,x^2e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}-e^{\left(\frac{4\,(i\,an-\log(c))}{n}\right)}\right)e^{\left(-\frac{2\,(i\,an-\log(c))}{n}\right)}}{16\,x^4}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2/x^3,x, algorithm="fricas")
[Out] -1/16*(4*x^4*log(x) + 4*x^2*e^(2*(I*a*n - log(c))/n) - e^(4*(I*a*n - log(c)
)/n))*e^(-2*(I*a*n - log(c))/n)/x^4
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 219 vs. 2(70) = 140.

Time = 5.36 (sec) , antiderivative size = 219, normalized size of antiderivative = 2.88

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{3n\sqrt{-\frac{1}{n^2}}\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4x^2} + \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\sin\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2x^2} - \frac{\cos^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{2x^2} + \frac{\log\left(cx^n\right)\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4nx^2} - \frac{\log\left(cx^n\right)\cos^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{4nx^2}$$

```
[In] integrate(sin(a+ln(c*x**n)*(-1/n**2)**(1/2))**2/x**3,x)
[Out] 3*n*sqrt(-1/n**2)*sin(a + sqrt(-1/n**2)*log(c*x**n))*cos(a + sqrt(-1/n**2)*
log(c*x**n))/(4*x**2) + sqrt(-1/n**2)*log(c*x**n)*sin(a + sqrt(-1/n**2)*log
(c*x**n))*cos(a + sqrt(-1/n**2)*log(c*x**n))/(2*x**2) - cos(a + sqrt(-1/n**
2)*log(c*x**n))**2/(2*x**2) + log(c*x**n)*sin(a + sqrt(-1/n**2)*log(c*x**n)
)**2/(4*n*x**2) - log(c*x**n)*cos(a + sqrt(-1/n**2)*log(c*x**n))**2/(4*n*x*
*2)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.71

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = -\frac{4\,c^{\frac{4}{n}}x^6\cos\left(2\,a\right)\log\left(x\right)+4\,c^{\frac{2}{n}}x^4-x^2\cos\left(2\,a\right)}{16\,c^{\frac{2}{n}}x^6}$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2/x^3,x, algorithm="maxima")
[Out] -1/16*(4*c^(4/n)*x^6*cos(2*a)*log(x) + 4*c^(2/n)*x^4 - x^2*cos(2*a))/(c^(2/
n)*x^6)
```

Giac [F]

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sin\left(\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)^2}{x^3}\,dx$$

```
[In] integrate(sin(a+log(c*x^n)*(-1/n^2)^(1/2))^2/x^3,x, algorithm="giac")
[Out] integrate(sin(sqrt(-1/n^2)*log(c*x^n) + a)^2/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^2\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sin\left(a+\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}\right)^2}{x^3}\,dx$$

```
[In] int(sin(a + log(c*x^n)*(-1/n^2)^(1/2))^2/x^3,x)
[Out] int(sin(a + log(c*x^n)*(-1/n^2)^(1/2))^2/x^3, x)
```

3.40 $\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 370
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Giac [C] (verification not implemented) 375
Mupad [B] (verification not implemented) 376

Optimal result

Integrand size = 33, antiderivative size = 226

$$
\begin{aligned}
&\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx \\
&= -\frac{4\sqrt{-\frac{(1+m)^2}{n^2}}\,nx^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)}{5(1+m)^2} \\
&\quad+\frac{8x^{1+m}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)}{5(1+m)} \\
&\quad+\frac{6\sqrt{-\frac{(1+m)^2}{n^2}}\,nx^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)}{5(1+m)^2} \\
&\quad-\frac{4x^{1+m}\sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)}{5(1+m)}
\end{aligned}
$$

```
[Out] 8/5*x^(1+m)*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))/(1+m)-4/5*x^(1+m)*sin
(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3/(1+m)-4/5*n*x^(1+m)*cos(a+1/2*ln(c
*x^n)*(-(1+m)^2/n^2)^(1/2))*(-(1+m)^2/n^2)^(1/2)/(1+m)^2+6/5*n*x^(1+m)*cos(
a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1
/2))^2*(-(1+m)^2/n^2)^(1/2)/(1+m)^2
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 226, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.061$, Rules used = {4575, 4573}

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx$$
$$= -\frac{4x^{m+1}\sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log\left(cx^n\right)\right)}{5(m+1)}+\frac{8x^{m+1}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log\left(cx^n\right)\right)}{5(m+1)}$$
$$-\frac{4n\sqrt{-\frac{(m+1)^2}{n^2}}x^{m+1}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log\left(cx^n\right)\right)}{5(m+1)^2}$$
$$+\frac{6n\sqrt{-\frac{(m+1)^2}{n^2}}x^{m+1}\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log\left(cx^n\right)\right)\cos\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log\left(cx^n\right)\right)}{5(m+1)^2}$$

```
[In] Int[x^m*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^3,x]
```

```
[Out] (-4*Sqrt[-((1 + m)^2/n^2)]*n*x^(1 + m)*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[
c*x^n])/2])/(5*(1 + m)^2) + (8*x^(1 + m)*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Lo
g[c*x^n])/2])/(5*(1 + m)) + (6*Sqrt[-((1 + m)^2/n^2)]*n*x^(1 + m)*Cos[a + (
Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c
*x^n])/2]^2)/(5*(1 + m)^2) - (4*x^(1 + m)*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*L
og[c*x^n])/2]^3)/(5*(1 + m))
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{6\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2} - \frac{4x^{1+m}\sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)} + \frac{6}{5}\int x^m\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx$$

$$= -\frac{4\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2} + \frac{8x^{1+m}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)} + \frac{6\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\sin^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2} - \frac{4x^{1+m}\sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)}$$

Mathematica [A] (verified)

Time = 0.96 (sec) , antiderivative size = 169, normalized size of antiderivative = 0.75

$$\int x^m\sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx = \frac{x^{1+m}\left(-5\sqrt{-\frac{(1+m)^2}{n^2}}n\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)-3\sqrt{-\frac{(1+m)^2}{n^2}}n\cos\left(3a+\frac{3}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)+\right.}{10(1+m)^2}$$

```
[In] Integrate[x^m*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^3,x]
```

```
[Out] (x^(1 + m)*(-5*Sqrt[-((1 + m)^2/n^2)]*n*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log
[c*x^n])/2] - 3*Sqrt[-((1 + m)^2/n^2)]*n*Cos[3*a + (3*Sqrt[-((1 + m)^2/n^2)
]*Log[c*x^n])/2] + 2*(1 + m)*(5*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])
/2] + Sin[3*a + (3*Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2])))/(10*(1 + m)^2)
```

Maple [A] (verified)

Time = 74.05 (sec) , antiderivative size = 135, normalized size of antiderivative = 0.60

method	result
parallelrisch	$\frac{8x^{1+m}\left(5n\sqrt{-\frac{(1+m)^2}{n^2}}\tan\left(\frac{a}{2}+\sqrt{-\frac{(1+m)^2}{n^2}}\ln\left((c\,x^n)^{\frac{1}{4}}\right)\right)^2+4(1+m)\tan\left(\frac{a}{2}+\sqrt{-\frac{(1+m)^2}{n^2}}\ln\left((c\,x^n)^{\frac{1}{4}}\right)\right)-n\sqrt{-\frac{(1+m)^2}{n^2}}\right)}{5(1+m)^2\left(1+\tan\left(\frac{a}{2}+\sqrt{-\frac{(1+m)^2}{n^2}}\ln\left((c\,x^n)^{\frac{1}{4}}\right)\right)^2\right)^3}$

```
[In] int(x^m*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x,method=_RETURNVERBOSE
)

[Out] 8/5*x^(1+m)*(5*n*(-(1+m)^2/n^2)^(1/2)*tan(1/2*a+(-(1+m)^2/n^2)^(1/2)*ln((c*
x^n)^(1/4)))^2+4*(1+m)*tan(1/2*a+(-(1+m)^2/n^2)^(1/2)*ln((c*x^n)^(1/4)))-n*
(-(1+m)^2/n^2)^(1/2))/(1+m)^2/(1+tan(1/2*a+(-(1+m)^2/n^2)^(1/2)*ln((c*x^n)^
(1/4)))^2)^3
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 128, normalized size of antiderivative = 0.57

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$$
$$=\frac{\left(5i\,e^{\left(-\frac{(m+1)n\log(x)-2i\,an+(m+1)\log(c)}{n}\right)}-15i\,e^{\left(-\frac{2\,((m+1)n\log(x)-2i\,an+(m+1)\log(c))}{n}\right)}-5i\,e^{\left(-\frac{3\,((m+1)n\log(x)-2i\,an+(m+1)\log(c))}{n}\right)}\right.}{20\,(m+1)}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="fr
icas")

[Out] 1/20*(5*I*e^(-((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) - 15*I*e^(-2
*((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) - 5*I*e^(-3*((m + 1)*n*lo
g(x) - 2*I*a*n + (m + 1)*log(c))/n) - I)*e^(5/2*((m + 1)*n*log(x) - 2*I*a*n
 + (m + 1)*log(c))/n + (2*I*a*n - (m + 1)*log(c))/n)/(m + 1)
```

Sympy [F]

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$$
$$=\int x^m \sin^3\left(a+\frac{\sqrt{-\frac{m^2}{n^2}-\frac{2m}{n^2}-\frac{1}{n^2}}\log(cx^n)}{2}\right)dx$$

```
[In] integrate(x**m*sin(a+1/2*ln(c*x**n)*(-(1+m)**2/n**2)**(1/2))**3,x)
```

```
[Out] Integral(x**m*sin(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)/2)**
3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 195, normalized size of antiderivative = 0.86

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx =$$
$$-\frac{\left(c^{\frac{3m}{n}+\frac{3}{n}}xe^{\left(m\log(x)+\frac{3m\log(x^n)}{n}+\frac{3\log(x^n)}{n}\right)}\sin(3a)-5c^{\frac{2m}{n}+\frac{2}{n}}xe^{\left(m\log(x)+\frac{2m\log(x^n)}{n}+\frac{2\log(x^n)}{n}\right)}\sin(a)-15c^{\frac{m}{n}+\frac{1}{n}}x}{20\left(c^{\frac{3m}{2n}+\frac{3}{2n}}m+c^{\frac{3m}{2n}+\frac{3}{2n}}\right)}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="ma
xima")
```

```
[Out] -1/20*(c^(3*m/n + 3/n)*x*e^(m*log(x) + 3*m*log(x^n)/n + 3*log(x^n)/n)*sin(3
*a) - 5*c^(2*m/n + 2/n)*x*e^(m*log(x) + 2*m*log(x^n)/n + 2*log(x^n)/n)*sin(
a) - 15*c^(m/n + 1/n)*x*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n)*sin(a) - 5
*x*x^m*sin(3*a))*e^(-3/2*m*log(x^n)/n - 3/2*log(x^n)/n)/(c^(3/2*m/n + 3/2/n
)*m + c^(3/2*m/n + 3/2/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 7.35 (sec) , antiderivative size = 1870, normalized size of antiderivative = 8.27

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="gi
ac")
```

```
[Out] 1/4*(8*I*m^3*n^4*x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)
*log(c))/n^2) - 24*I*m^3*n^4*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + ab
s(m*n + n)*log(c))/n^2) + 24*I*m^3*n^4*x*x^m*e^(-I*a + 1/2*(n*abs(m*n + n)*
log(x) + abs(m*n + n)*log(c))/n^2) - 8*I*m^3*n^4*x*x^m*e^(-3*I*a + 3/2*(n*a
bs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*I*m^2*n^4*x*x^m*e^(3*I*
a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 12*I*m^2*n^3*x
*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(
c))/n^2) - 72*I*m^2*n^4*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n
 + n)*log(c))/n^2) - 12*I*m^2*n^3*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*
n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 72*I*m^2*n^4*x*x^m*e^(-I*a + 1/
2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 12*I*m^2*n^3*x*x^m*a
bs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2
) - 24*I*m^2*n^4*x*x^m*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n
)*log(c))/n^2) + 12*I*m^2*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n
 + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 2*I*(m*n + n)^2*m*n^2*x*x^m*e^(3
*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*I*m*n^4*
x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 2
4*I*m*n^3*x*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*
n + n)*log(c))/n^2) + 54*I*(m*n + n)^2*m*n^2*x*x^m*e^(I*a - 1/2*(n*abs(m*n
+ n)*log(x) + abs(m*n + n)*log(c))/n^2) - 72*I*m*n^4*x*x^m*e^(I*a - 1/2*(n*
abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 24*I*m*n^3*x*x^m*abs(m*n
+ n)*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 54*I
*(m*n + n)^2*m*n^2*x*x^m*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n
)*log(c))/n^2) + 72*I*m*n^4*x*x^m*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + ab
s(m*n + n)*log(c))/n^2) - 24*I*m*n^3*x*x^m*abs(m*n + n)*e^(-I*a + 1/2*(n*ab
s(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 2*I*(m*n + n)^2*m*n^2*x*x^m
*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 24*I*
m*n^4*x*x^m*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n
^2) + 24*I*m*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x)
+ abs(m*n + n)*log(c))/n^2) - 2*I*(m*n + n)^2*n^2*x*x^m*e^(3*I*a - 3/2*(n*a
bs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 8*I*n^4*x*x^m*e^(3*I*a - 3
/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 3*I*(m*n + n)^2*n*x
*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(
```

```
c))/n^2) + 12*I*n^3*x*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x
) + abs(m*n + n)*log(c))/n^2) + 54*I*(m*n + n)^2*n^2*x*x^m*e^(I*a - 1/2*(n*
abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 24*I*n^4*x*x^m*e^(I*a - 1
/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 27*I*(m*n + n)^2*n*
x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c
))/n^2) - 12*I*n^3*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) +
 abs(m*n + n)*log(c))/n^2) - 54*I*(m*n + n)^2*n^2*x*x^m*e^(-I*a + 1/2*(n*ab
s(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*I*n^4*x*x^m*e^(-I*a + 1/
2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 27*I*(m*n + n)^2*n*x
*x^m*abs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c
))/n^2) - 12*I*n^3*x*x^m*abs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x)
+ abs(m*n + n)*log(c))/n^2) + 2*I*(m*n + n)^2*n^2*x*x^m*e^(-3*I*a + 3/2*(n*
abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 8*I*n^4*x*x^m*e^(-3*I*a +
 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 3*I*(m*n + n)^2*n
*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*l
og(c))/n^2) + 12*I*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*l
og(x) + abs(m*n + n)*log(c))/n^2))/(16*m^4*n^4 + 64*m^3*n^4 - 40*(m*n + n)^
2*m^2*n^2 + 96*m^2*n^4 - 80*(m*n + n)^2*m*n^2 + 64*m*n^4 + 9*(m*n + n)^4 -
40*(m*n + n)^2*n^2 + 16*n^4)
```

Mupad [B] (verification not implemented)

Time = 29.96 (sec) , antiderivative size = 297, normalized size of antiderivative = 1.31

$$\int x^m \sin^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=-\frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}{2}}}\,\left(2\,m+2+n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,1\mathrm{i}\right)\,1\mathrm{i}}{4\,{\left(m\,1\mathrm{i}+1\mathrm{i}\right)}^2}$$
$$+\frac{x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}{2}}\,\left(2\,m+2-n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,1\mathrm{i}\right)\,1\mathrm{i}}{4\,{\left(m\,1\mathrm{i}+1\mathrm{i}\right)}^2}$$
$$-\frac{x\,x^m\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,3\mathrm{i}}{2}}}\,\left(2\,m+2+n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,3\mathrm{i}\right)\,1\mathrm{i}}{20\,{\left(m\,1\mathrm{i}+1\mathrm{i}\right)}^2}$$
$$+\frac{x\,x^m\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,3\mathrm{i}}{2}}\,\left(2\,m+2-n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,3\mathrm{i}\right)\,1\mathrm{i}}{20\,{\left(m\,1\mathrm{i}+1\mathrm{i}\right)}^2}$$

```
[In] int(x^m*sin(a + (log(c*x^n)*(-(m + 1)^2/n^2)^(1/2))/2)^3,x)
```

```
[Out] (x*x^m*exp(a*1i)*(c*x^n)^(((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)/2)*(2*
m - n*(-(m + 1)^2/n^2)^(1/2)*1i + 2)*1i)/(4*(m*1i + 1i)^2) - (x*x^m*exp(-a*
1i)/(c*x^n)^(((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)/2)*(2*m + n*(-(m +
1)^2/n^2)^(1/2)*1i + 2)*1i)/(4*(m*1i + 1i)^2) - (x*x^m*exp(-a*3i)/(c*x^n)^(
((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*3i)/2)*(2*m + n*(-(m + 1)^2/n^2)^(1/
2)*3i + 2)*1i)/(20*(m*1i + 1i)^2) + (x*x^m*exp(a*3i)*(c*x^n)^(((- (2*m)/n^2
 - 1/n^2 - m^2/n^2)^(1/2)*3i)/2)*(2*m - n*(-(m + 1)^2/n^2)^(1/2)*3i + 2)*1i
)/(20*(m*1i + 1i)^2)
```

3.41 $\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$

Optimal result 378
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Giac [F(-2)] 381
Mupad [F(-1)] 382

Optimal result

Integrand size = 25, antiderivative size = 172

$$\begin{aligned}\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx = &-\frac{3}{16}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{-1/n}\\ &+\frac{3}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{\frac{1}{n}}\\ &-\frac{1}{48}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{3/n}\\ &+\frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3(cx^n)^{-3/n}\log(x)\end{aligned}$$

```
[Out] -3/16*exp(a*n*(-1/n^2)^(1/2))*n*x^3*(-1/n^2)^(1/2)/((c*x^n)^(1/n))+3/32*n*x
^3*(c*x^n)^(1/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/48*n*x^3*(c*x^n)^
(3/n)*(-1/n^2)^(1/2)/exp(3*a*n*(-1/n^2)^(1/2))+1/8*exp(3*a*n*(-1/n^2)^(1/2)
)*n*x^3*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(3/n))
```

Rubi [A] (verified)

Time = 0.18 (sec) , antiderivative size = 172, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.080, Rules used

= {4581, 4577}

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{3}{16}\sqrt{-\frac{1}{n^2}}nx^3e^{a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-1/n} - \frac{1}{48}\sqrt{-\frac{1}{n^2}}nx^3e^{-3a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{3/n} + \frac{3}{32}\sqrt{-\frac{1}{n^2}}nx^3e^{-a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{\frac{1}{n}} + \frac{1}{8}\sqrt{-\frac{1}{n^2}}nx^3e^{3a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-3/n}$$

```
[In] Int[x^2*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^3,x]
```

```
[Out] (-3*E^(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n*x^3)/(16*(c*x^n)^n^(-1)) + (3*Sqr
t[-n^(-2)]*n*x^3*(c*x^n)^n^(-1))/(32*E^(a*Sqrt[-n^(-2)]*n)) - (Sqrt[-n^(-2)
]*n*x^3*(c*x^n)^(3/n))/(48*E^(3*a*Sqrt[-n^(-2)]*n)) + (E^(3*a*Sqrt[-n^(-2)]
*n)*Sqrt[-n^(-2)]*n*x^3*Log[x])/(8*(c*x^n)^(3/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^3\left(cx^n\right)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{n}$$

$$= \frac{1}{8}\left(\sqrt{-\frac{1}{n^2}}x^3\left(cx^n\right)^{-3/n}\right)\text{Subst}\left(\int\left(\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}}{x}-3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}+3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{n}}-e^{-3a\sqrt{-\frac{1}{n^2}}n}\right.\right.$$

$$= -\frac{3}{16}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{-1/n} + \frac{3}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{\frac{1}{n}} - \frac{1}{48}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{3/n} + \frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^3\left(cx^n\right)^{-3/n}\log(x)$$

Mathematica [F]

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx = \int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx$$

[In] Integrate[x^2*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^3,x]

[Out] Integrate[x^2*Sin[a + Sqrt[-n^(-2)]*Log[c*x^n]]^3, x]

Maple [F]

$$\int x^2 \sin\left(a+\ln\left(c\,x^n\right)\sqrt{-\frac{1}{n^2}}\right)^3 dx$$

[In] int(x^2*sin(a+ln(c*x^n)*(-1/n^2)^(1/2))^3,x)

[Out] int(x^2*sin(a+ln(c*x^n)*(-1/n^2)^(1/2))^3,x)

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.48

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx$$
$$= \frac{1}{96}\left(-2i\,x^6+9i\,x^4e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}-18i\,x^2e^{\left(\frac{4\,(i\,an-\log(c))}{n}\right)}+12i\,e^{\left(\frac{6\,(i\,an-\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{3\,(i\,an-\log(c))}{n}\right)}$$

[In] integrate(x^2*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="fricas")

[Out] 1/96*(-2*I*x^6 + 9*I*x^4*e^(2*(I*a*n - log(c))/n) - 18*I*x^2*e^(4*(I*a*n - log(c))/n) + 12*I*e^(6*(I*a*n - log(c))/n)*log(x))*e^(-3*(I*a*n - log(c))/n
)

Sympy [F(-1)]

Timed out.

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \text{Timed out}$$

```
[In] integrate(x**2*sin(a+ln(c*x**n)*(-1/n**2)**(1/2))**3,x)
[Out] Timed out
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 90, normalized size of antiderivative = 0.52

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{18\,c^{\frac{2}{n}}x^3\sin\left(a\right)-12\,\left(x^n\right)^{\left(\frac{1}{n}\right)}\log\left(x\right)\sin\left(3\,a\right)-\left(2\,c^{\frac{6}{n}}x^6\sin\left(3\,a\right)-9\,c^{\frac{4}{n}}x^4\sin\left(a\right)\right)\left(x^n\right)^{\left(\frac{1}{n}\right)}}{96\,c^{\frac{3}{n}}\left(x^n\right)^{\left(\frac{1}{n}\right)}}$$

```
[In] integrate(x^2*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="maxima")
[Out] 1/96*(18*c^(2/n)*x^3*sin(a) - 12*(x^n)^(1/n)*log(x)*sin(3*a) - (2*c^(6/n)*x
^6*sin(3*a) - 9*c^(4/n)*x^4*sin(a))*(x^n)^(1/n))/(c^(3/n)*(x^n)^(1/n))
```

Giac [F(-2)]

Exception generated.

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \text{Exception raised: NotImplementedError}$$

```
[In] integrate(x^2*sin(a+log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="giac")
[Out] Exception raised: NotImplementedError >> unable to parse Giac output: ((-9*
i)*sageVARn^4*sageVARx^3*exp((-3*i)*sageVARa)*exp((3*sageVARn*abs(sageVARn)
*ln(sageVARx)+3*abs(sageVARn)*ln(sageVARc))/sageVARn^2)+27*i*sageVARn^4*sag
eVARx^3*exp((-i)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \sin^3\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x^2\sin\left(a+\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}\right)^3\,dx$$

```
[In] int(x^2*sin(a + log(c*x^n)*(-1/n^2)^(1/2))^3,x)
[Out] int(x^2*sin(a + log(c*x^n)*(-1/n^2)^(1/2))^3, x)
```

3.42 $\int x \sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx$

Optimal result 383
Rubi [A] (verified) 383
Mathematica [F] 385
Maple [F] 385
Fricas [C] (verification not implemented) 385
Sympy [F] 386
Maxima [A] (verification not implemented) 386
Giac [F(-2)] 386
Mupad [B] (verification not implemented) 387

Optimal result

Integrand size = 26, antiderivative size = 178

$$\begin{aligned}\int x \sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right) dx = &-\frac{9}{32}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2\left(cx^n\right)^{-\frac{2}{3}/n} \\ &+\frac{9}{64}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2\left(cx^n\right)^{\frac{2}{3}/n} \\ &-\frac{1}{32}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2\left(cx^n\right)^{2/n} \\ &+\frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2\left(cx^n\right)^{-2/n}\log(x)\end{aligned}$$

```
[Out] -9/32*exp(a*n*(-1/n^2)^(1/2))*n*x^2*(-1/n^2)^(1/2)/((c*x^n)^(2/3/n))+9/64*n
*x^2*(c*x^n)^(2/3/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/32*n*x^2*(c*x
^n)^(2/n)*(-1/n^2)^(1/2)/exp(3*a*n*(-1/n^2)^(1/2))+1/8*exp(3*a*n*(-1/n^2)^(
1/2))*n*x^2*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(2/n))
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 178, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.077, Rules used

$= \{4581, 4577\}$

$$\int x\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{9}{32}\sqrt{-\frac{1}{n^2}}nx^2e^{a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-\frac{2}{3}/n} + \frac{9}{64}\sqrt{-\frac{1}{n^2}}nx^2e^{-a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{2}{3}/n} - \frac{1}{32}\sqrt{-\frac{1}{n^2}}nx^2e^{-3a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{2/n} + \frac{1}{8}\sqrt{-\frac{1}{n^2}}nx^2e^{3a\sqrt{-\frac{1}{n^2}}n}\log(x)\,(cx^n)^{-2/n}$$

```
[In] Int[x*Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
```

```
[Out] (-9*E^(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n*x^2)/(32*(c*x^n)^(2/(3*n))) + (9*
Sqrt[-n^(-2)]*n*x^2*(c*x^n)^(2/(3*n)))/(64*E^(a*Sqrt[-n^(-2)]*n)) - (Sqrt[-
n^(-2)]*n*x^2*(c*x^n)^(2/n))/(32*E^(3*a*Sqrt[-n^(-2)]*n)) + (E^(3*a*Sqrt[-n
^(-2)]*n)*Sqrt[-n^(-2)]*n*x^2*Log[x])/(8*(c*x^n)^(2/n))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}$$

$$= \frac{1}{8}\left(\sqrt{-\frac{1}{n^2}}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int\left(\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}}{x} - 3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{3n}} + 3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{8}{3n}} - e^{-3a\sqrt{-\frac{1}{n^2}}n}\right.\right.$$

$$= -\frac{9}{32}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{-\frac{2}{3}/n} + \frac{9}{64}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{\frac{2}{3}/n} - \frac{1}{32}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{2/n} + \frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx^2(cx^n)^{-2/n}\log(x)$$

Mathematica [F]

$$\int x\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx=\int x\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx$$

```
[In] Integrate[x*Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
[Out] Integrate[x*Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3, x]
```

Maple [F]

$$\int x\sin\left(a+\frac{2\ln(c\,x^n)\sqrt{-\frac{1}{n^2}}}{3}\right)^3dx$$

```
[In] int(x*sin(a+2/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
[Out] int(x*sin(a+2/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 84, normalized size of antiderivative = 0.47

$$\int x\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)dx$$
$$=\frac{1}{64}\left(-2i\,x^4+9i\,x^{\frac{8}{3}}e^{\left(\frac{2\,(3i\,an-2\,\log(c))}{3\,n}\right)}-18i\,x^{\frac{4}{3}}e^{\left(\frac{4\,(3i\,an-2\,\log(c))}{3\,n}\right)}+24i\,e^{\left(\frac{2\,(3i\,an-2\,\log(c))}{n}\right)}\log\left(x^{\frac{1}{3}}\right)\right)e^{\left(-\frac{3i\,an-2\,\log(c)}{n}\right)}$$

```
[In] integrate(x*sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="fricas")
[Out] 1/64*(-2*I*x^4 + 9*I*x^(8/3)*e^(2/3*(3*I*a*n - 2*log(c))/n) - 18*I*x^(4/3)*
e^(4/3*(3*I*a*n - 2*log(c))/n) + 24*I*e^(2*(3*I*a*n - 2*log(c))/n)*log(x^(1
/3)))*e^(-(3*I*a*n - 2*log(c))/n)
```

Sympy [F]

$$\int x \sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int x \sin^3\left(a+\frac{2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)\,dx$$

```
[In] integrate(x*sin(a+2/3*ln(c*x**n)*(-1/n**2)**(1/2))**3,x)
[Out] Integral(x*sin(a + 2*sqrt(-1/n**2)*log(c*x**n)/3)**3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 112, normalized size of antiderivative = 0.63

$$\int x \sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=\frac{9\,c^{\frac{10}{3\,n}}x^2(x^n)^{\frac{4}{3\,n}}\sin\left(a\right)-8\,c^{\frac{2}{3\,n}}(x^n)^{\frac{2}{3\,n}}\log\left(x\right)\sin\left(3\,a\right)+18\,c^{\frac{2}{n}}x^2\sin\left(a\right)-2\,c^{\frac{14}{3\,n}}e^{\left(\frac{2\,\log\left(x^n\right)}{3\,n}+4\,\log\left(x\right)\right)}\sin\left(3\,a\right)}{64\,c^{\frac{8}{3\,n}}(x^n)^{\frac{2}{3\,n}}}$$

```
[In] integrate(x*sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="maxima")
[Out] 1/64*(9*c^(10/3/n)*x^2*(x^n)^(4/3/n)*sin(a) - 8*c^(2/3/n)*(x^n)^(2/3/n)*log
(x)*sin(3*a) + 18*c^(2/n)*x^2*sin(a) - 2*c^(14/3/n)*e^(2/3*log(x^n)/n + 4*l
og(x))*sin(3*a))/(c^(8/3/n)*(x^n)^(2/3/n))
```

Giac [F(-2)]

Exception generated.

$$\int x \sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\text{Exception raised: NotImplementedError}$$

```
[In] integrate(x*sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="giac")
[Out] Exception raised: NotImplementedError >> unable to parse Giac output: ((-9*
i)*sageVARn^4*sageVARx^2*exp((-3*i)*sageVARa)*exp((2*sageVARn*abs(sageVARn)
*ln(sageVARx)+2*abs(sageVARn)*ln(sageVARc))/sageVARn^2)+27*i*sageVARn^4*sag
eVARx^2*exp((-i)
```

Mupad [B] (verification not implemented)

Time = 29.19 (sec) , antiderivative size = 163, normalized size of antiderivative = 0.92

$$\int x\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-x^2\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{\left(c\,x^n\right)^{\frac{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}{3}}}\,\left(\frac{9\,n\,\sqrt{-\frac{1}{n^2}}}{128}-\frac{27}{128}\mathrm{i}\right)-x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,\left(c\,x^n\right)^{\frac{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}{3}}\,\left(\frac{9\,n\,\sqrt{-\frac{1}{n^2}}}{128}+\frac{27}{128}\mathrm{i}\right)+\frac{x^2\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{\left(c\,x^n\right)^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}}}{16\,n\,\sqrt{-\frac{1}{n^2}}+16\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,3\mathrm{i}}\,\left(c\,x^n\right)^{\sqrt{-\frac{1}{n^2}}\,2\mathrm{i}}}{16\,n\,\sqrt{-\frac{1}{n^2}}-16\mathrm{i}}$$

```
[In] int(x*sin(a + (2*log(c*x^n)*(-1/n^2)^(1/2))/3)^3,x)
```

```
[Out] (x^2*exp(-a*3i)/(c*x^n)^((-1/n^2)^(1/2)*2i))/(16*n*(-1/n^2)^(1/2) + 16i) -
x^2*exp(a*1i)*(c*x^n)^(((-1/n^2)^(1/2)*2i)/3)*((9*n*(-1/n^2)^(1/2))/128 + 2
7i/128) - x^2*exp(-a*1i)/(c*x^n)^(((-1/n^2)^(1/2)*2i)/3)*((9*n*(-1/n^2)^(1/
2))/128 - 27i/128) + (x^2*exp(a*3i)*(c*x^n)^((-1/n^2)^(1/2)*2i))/(16*n*(-1/
n^2)^(1/2) - 16i)
```

3.43 $\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 388
Rubi [A] (verified) 388
Mathematica [F] 390
Maple [F] 390
Fricas [C] (verification not implemented) 390
Sympy [F] 391
Maxima [A] (verification not implemented) 391
Giac [F(-2)] 391
Mupad [B] (verification not implemented) 392

Optimal result

Integrand size = 24, antiderivative size = 168

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{9}{16}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx\left(cx^n\right)^{-\frac{1}{3}/n} + \frac{9}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx\left(cx^n\right)^{\frac{1}{3}/n} - \frac{1}{16}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx\left(cx^n\right)^{\frac{1}{n}} + \frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx\left(cx^n\right)^{-1/n}\log(x)$$

```
[Out] -9/16*exp(a*n*(-1/n^2)^(1/2))*n*x*(-1/n^2)^(1/2)/((c*x^n)^(1/3/n))+9/32*n*x
*(c*x^n)^(1/3/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))-1/16*n*x*(c*x^n)^(1
/n)*(-1/n^2)^(1/2)/exp(3*a*n*(-1/n^2)^(1/2))+1/8*exp(3*a*n*(-1/n^2)^(1/2))*
n*x*ln(x)*(-1/n^2)^(1/2)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 168, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used

$= \{4571, 4577\}$

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = -\frac{9}{16}\sqrt{-\frac{1}{n^2}}nxe^{a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-\frac{1}{3}/n} + \frac{9}{32}\sqrt{-\frac{1}{n^2}}nxe^{-a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{\frac{1}{3}/n} - \frac{1}{16}\sqrt{-\frac{1}{n^2}}nxe^{-3a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{\frac{1}{n}} + \frac{1}{8}\sqrt{-\frac{1}{n^2}}nxe^{3a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}$$

```
[In] Int[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
```

```
[Out] (-9*E^(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n*x)/(16*(c*x^n)^(1/(3*n))) + (9*Sq
rt[-n^(-2)]*n*x*(c*x^n)^(1/(3*n)))/(32*E^(a*Sqrt[-n^(-2)]*n)) - (Sqrt[-n^(-
2)]*n*x*(c*x^n)^n^(-1))/(16*E^(3*a*Sqrt[-n^(-2)]*n)) + (E^(3*a*Sqrt[-n^(-2)
]*n)*Sqrt[-n^(-2)]*n*x*Log[x])/(8*(c*x^n)^n^(-1))
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{n}$$

$$=\frac{1}{8}\left(\sqrt{-\frac{1}{n^2}}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}}{x}-3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{3n}}+3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{3n}}-e^{-3a\sqrt{-\frac{1}{n^2}}n}\right.\right.$$

$$=-\frac{9}{16}e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{-\frac{1}{3}/n}+\frac{9}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{\frac{1}{3}/n} -\frac{1}{16}e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{\frac{1}{n}}+\frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}nx(cx^n)^{-1/n}\log(x)$$

Mathematica [F]

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
[Out] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3, x]
```

Maple [F]

$$\int \sin\left(a+\frac{\ln\left(c\,x^{n}\right)\sqrt{-\frac{1}{n^{2}}}}{3}\right)^{3}dx$$

```
[In] int(sin(a+1/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
[Out] int(sin(a+1/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 84, normalized size of antiderivative = 0.50

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=\frac{1}{32}\left(9i\,x^{\frac{4}{3}}e^{\left(\frac{2\,(3i\,an-\log(c))}{3\,n}\right)}-2i\,x^2+12i\,e^{\left(\frac{2\,(3i\,an-\log(c))}{n}\right)}\log\left(x^{\frac{1}{3}}\right)-18i\,x^{\frac{2}{3}}e^{\left(\frac{4\,(3i\,an-\log(c))}{3\,n}\right)}\right)e^{\left(-\frac{3i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="fricas")
[Out] 1/32*(9*I*x^(4/3)*e^(2/3*(3*I*a*n - log(c))/n) - 2*I*x^2 + 12*I*e^(2*(3*I*a
*n - log(c))/n)*log(x^(1/3)) - 18*I*x^(2/3)*e^(4/3*(3*I*a*n - log(c))/n))*e
^(-(3*I*a*n - log(c))/n)
```

Sympy [F]

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int \sin^3\left(a+\frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)dx$$

```
[In] integrate(sin(a+1/3*ln(c*x**n)*(-1/n**2)**(1/2))**3,x)
[Out] Integral(sin(a + sqrt(-1/n**2)*log(c*x**n)/3)**3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 106, normalized size of antiderivative = 0.63

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=$$
$$-\frac{4\,c^{\frac{1}{3\,n}}(x^n)^{\frac{1}{3\,n}}\log\left(x\right)\sin\left(3\,a\right)-9\,c^{\frac{5}{3\,n}}x(x^n)^{\frac{2}{3\,n}}\sin\left(a\right)+2\,c^{\frac{7}{3\,n}}e^{\left(\frac{\log(x^n)}{3\,n}+2\,\log(x)\right)}\sin\left(3\,a\right)-18\,c^{\left(\frac{1}{n}\right)}x\sin\left(a\right)}{32\,c^{\frac{4}{3\,n}}(x^n)^{\frac{1}{3\,n}}}$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="maxima")
[Out] -1/32*(4*c^(1/3/n)*(x^n)^(1/3/n)*log(x)*sin(3*a) - 9*c^(5/3/n)*x*(x^n)^(2/3
/n)*sin(a) + 2*c^(7/3/n)*e^(1/3*log(x^n)/n + 2*log(x))*sin(3*a) - 18*c^(1/n
)*x*sin(a))/(c^(4/3/n)*(x^n)^(1/3/n))
```

Giac [F(-2)]

Exception generated.

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\text{Exception raised: NotImplementedError}$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="giac")
[Out] Exception raised: NotImplementedError >> unable to parse Giac output: ((-9*
i)*sageVARn^4*sageVARx*exp((-3*i)*sageVARa)*exp((sageVARn*abs(sageVARn)*ln(
sageVARx)+abs(sageVARn)*ln(sageVARc))/sageVARn^2)+27*i*sageVARn^4*sageVARx*
exp((-i)*sageVAR
```

Mupad [B] (verification not implemented)

Time = 27.26 (sec) , antiderivative size = 155, normalized size of antiderivative = 0.92

$$\int \sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=-x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}{3}}}\left(\frac{9\,n\,\sqrt{-\frac{1}{n^2}}}{64}-\frac{27}{64}\mathrm{i}\right)-x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}{3}}\left(\frac{9\,n\,\sqrt{-\frac{1}{n^2}}}{64}+\frac{27}{64}\mathrm{i}\right)+\frac{x\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}}{8\,n\,\sqrt{-\frac{1}{n^2}}+8\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}{8\,n\,\sqrt{-\frac{1}{n^2}}-8\mathrm{i}}$$

```
[In] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/3)^3,x)
```

```
[Out] (x*exp(-a*3i)/(c*x^n)^((-1/n^2)^(1/2)*1i))/(8*n*(-1/n^2)^(1/2) + 8i) - x*ex
p(a*1i)*(c*x^n)^(((-1/n^2)^(1/2)*1i)/3)*((9*n*(-1/n^2)^(1/2))/64 + 27i/64)
- x*exp(-a*1i)/(c*x^n)^(((-1/n^2)^(1/2)*1i)/3)*((9*n*(-1/n^2)^(1/2))/64 - 2
7i/64) + (x*exp(a*3i)*(c*x^n)^((-1/n^2)^(1/2)*1i))/(8*n*(-1/n^2)^(1/2) - 8i
)
```

3.44 $\int \frac{\sin^3(a)}{x} dx$

Optimal result . . . 393
Rubi [A] (verified) . . . 393
Mathematica [A] (verified) . . . 394
Maple [A] (verified) . . . 394
Fricas [A] (verification not implemented) . . . 394
Sympy [A] (verification not implemented) . . . 395
Maxima [A] (verification not implemented) . . . 395
Giac [A] (verification not implemented) . . . 395
Mupad [B] (verification not implemented) . . . 395

Optimal result

Integrand size = 8, antiderivative size = 7

$$\int \frac{\sin^3(a)}{x} dx = \log(x)\sin^3(a)$$

```
[Out] ln(x)*sin(a)^3
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.250, Rules used = {12, 29}

$$\int \frac{\sin^3(a)}{x} dx = \sin^3(a)\log(x)$$

```
[In] Int[Sin[a]^3/x,x]
```

```
[Out] Log[x]*Sin[a]^3
```

Rule 12

```
Int[(a_)*(u_), x_Symbol] :> Dist[a, Int[u, x], x] /; FreeQ[a, x] &&  !Match
Q[u, (b_)*(v_) /; FreeQ[b, x]]
```

Rule 29

```
Int[(x_)^(-1), x_Symbol] :> Simp[Log[x], x]
```

Rubi steps

$$\text{integral} = \sin^3(a) \int \frac{1}{x}\,dx$$
$$= \log(x)\sin^3(a)$$

Mathematica [A] (verified)

Time = 0.00 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^3(a)}{x}\,dx = \log(x)\sin^3(a)$$

```
[In] Integrate[Sin[a]^3/x,x]
[Out] Log[x]*Sin[a]^3
```

Maple [A] (verified)

Time = 0.03 (sec) , antiderivative size = 8, normalized size of antiderivative = 1.14

method	result	size
default	$\ln(x)\sin(a)^3$	8
norman	$\ln(x)\sin(a)^3$	8
risch	$\ln(x)\sin(a)^3$	8
parallelrisch	$\ln(x)\sin(a)^3$	8

```
[In] int(sin(a)^3/x,x,method=_RETURNVERBOSE)
[Out] ln(x)*sin(a)^3
```

Fricas [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 12, normalized size of antiderivative = 1.71

$$\int \frac{\sin^3(a)}{x}\,dx = -\left(\cos(a)^2 - 1\right)\log(x)\sin(a)$$

```
[In] integrate(sin(a)^3/x,x, algorithm="fricas")
[Out] -(cos(a)^2 - 1)*log(x)*sin(a)
```

Sympy [A] (verification not implemented)

Time = 0.02 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^3(a)}{x}\,dx = \log(x)\sin^3(a)$$

```
[In] integrate(sin(a)**3/x,x)
[Out] log(x)*sin(a)**3
```

Maxima [A] (verification not implemented)

none

Time = 0.20 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^3(a)}{x}\,dx = \log(x)\sin(a)^3$$

```
[In] integrate(sin(a)^3/x,x, algorithm="maxima")
[Out] log(x)*sin(a)^3
```

Giac [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 8, normalized size of antiderivative = 1.14

$$\int \frac{\sin^3(a)}{x}\,dx = \log(|x|)\sin(a)^3$$

```
[In] integrate(sin(a)^3/x,x, algorithm="giac")
[Out] log(abs(x))*sin(a)^3
```

Mupad [B] (verification not implemented)

Time = 26.39 (sec) , antiderivative size = 7, normalized size of antiderivative = 1.00

$$\int \frac{\sin^3(a)}{x}\,dx = \sin(a)^3\,\ln(x)$$

```
[In] int(sin(a)^3/x,x)
[Out] sin(a)^3*log(x)
```

3.45 $\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^2}\,dx$

Optimal result 396
Rubi [A] (verified) 396
Mathematica [F] 398
Maple [A] (verified) 398
Fricas [C] (verification not implemented) 399
Sympy [A] (verification not implemented) 399
Maxima [A] (verification not implemented) 400
Giac [F] 400
Mupad [F(-1)] 400

Optimal result

Integrand size = 28, antiderivative size = 176

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-1/n}}{16x} + \frac{9e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-\frac{1}{3}/n}}{32x} - \frac{9e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{1}{3}/n}}{16x} - \frac{e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{1}{n}}\log(x)}{8x}$$

```
[Out] -1/16*exp(3*a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x/((c*x^n)^(1/n))+9/32*exp
(a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x/((c*x^n)^(1/3/n))-9/16*n*(c*x^n)^(1
/3/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))/x-1/8*n*(c*x^n)^(1/n)*ln(x)*(-
1/n^2)^(1/2)/exp(3*a*n*(-1/n^2)^(1/2))/x
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used

= {4581, 4577}

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{\sqrt{-\frac{1}{n^2}}ne^{3a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-1/n}}{16x} + \frac{9\sqrt{-\frac{1}{n^2}}ne^{a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-\frac{1}{3}/n}}{32x} - \frac{9\sqrt{-\frac{1}{n^2}}ne^{-a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{3}/n}}{16x} - \frac{\sqrt{-\frac{1}{n^2}}ne^{-3a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{\frac{1}{n}}}{8x}$$

```
[In] Int[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^2,x]
```

```
[Out] -1/16*(E^(3*a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(x*(c*x^n)^n^(-1)) + (9*E^(
a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(32*x*(c*x^n)^(1/(3*n))) - (9*Sqrt[-n^(
-2)]*n*(c*x^n)^(1/(3*n)))/(16*E^(a*Sqrt[-n^(-2)]*n)*x) - (Sqrt[-n^(-2)]*n*(
c*x^n)^n^(-1)*Log[x])/(8*E^(3*a*Sqrt[-n^(-2)]*n)*x)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{nx}$$

$$= -\frac{\left(\sqrt{-\frac{1}{n^2}}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{-3a\sqrt{-\frac{1}{n^2}}n}}{x} + 3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1-\frac{4}{3n}} - 3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1-\frac{2}{3n}} - e^{3a\sqrt{-\frac{1}{n^2}}n}x^{-2}\right.\right.}{8x}$$

$$= -\frac{e^{3a\sqrt{-\frac{1}{n^2}}\,n}\sqrt{-\frac{1}{n^2}}\,n(cx^n)^{-1/n}}{16x} + \frac{9e^{a\sqrt{-\frac{1}{n^2}}\,n}\sqrt{-\frac{1}{n^2}}\,n(cx^n)^{-\frac{1}{3}/n}}{32x} - \frac{9e^{-a\sqrt{-\frac{1}{n^2}}\,n}\sqrt{-\frac{1}{n^2}}\,n(cx^n)^{\frac{1}{3}/n}}{16x} - \frac{e^{-3a\sqrt{-\frac{1}{n^2}}\,n}\sqrt{-\frac{1}{n^2}}\,n(cx^n)^{\frac{1}{n}}\log(x)}{8x}$$

Mathematica [F]

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^2,x]
[Out] Integrate[Sin[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^2, x]
```

Maple [A] (verified)

Time = 45.93 (sec) , antiderivative size = 284, normalized size of antiderivative = 1.61

method	result
parallelrisch	$12n\sqrt{-\frac{1}{n^2}}\left(n+\frac{5\ln(c\,x^n)}{12}\right)\tan\left(\frac{a}{2}+\sqrt{-\frac{1}{n^2}}\,\ln\left(\left(c\,x^n\right)^{\frac{1}{6}}\right)\right)^6+\left(-30\ln(c\,x^n)-42n\right)\tan\left(\frac{a}{2}+\sqrt{-\frac{1}{n^2}}\,\ln\left(\left(c\,x^n\right)^{\frac{1}{6}}\right)\right)^5-75\sqrt{-\frac{1}{n^2}}\,\tan$

```
[In] int(sin(a+1/3*ln(c*x^n)*(-1/n^2)^(1/2))^3/x^2,x,method=_RETURNVERBOSE)
[Out] 1/40*(12*n*(-1/n^2)^(1/2)*(n+5/12*ln(c*x^n))*tan(1/2*a+(-1/n^2)^(1/2)*ln((c
*x^n)^(1/6)))^6+(-30*ln(c*x^n)-42*n)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1
/6)))^5-75*(-1/n^2)^(1/2)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/6)))^4*ln(
c*x^n)*n+(100*ln(c*x^n)-220*n)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/6)))^
3+75*(-1/n^2)^(1/2)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/6)))^2*ln(c*x^n)
*n+(-30*ln(c*x^n)-42*n)*tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)^(1/6)))-12*n*(-
1/n^2)^(1/2)*(n+5/12*ln(c*x^n)))/x/n/(1+tan(1/2*a+(-1/n^2)^(1/2)*ln((c*x^n)
^(1/6)))^2)^3
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 87, normalized size of antiderivative = 0.49

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{\left(-12i\,x^2\log\left(x^{\frac{1}{3}}\right)-18i\,x^{\frac{4}{3}}e^{\left(\frac{2\,(3i\,an-\log(c))}{3\,n}\right)}+9i\,x^{\frac{2}{3}}e^{\left(\frac{4\,(3i\,an-\log(c))}{3\,n}\right)}-2i\,e^{\left(\frac{2\,(3i\,an-\log(c))}{n}\right)}\right)e^{\left(-\frac{3i\,an-\log(c)}{n}\right)}}{32\,x^2}$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^2,x, algorithm="fricas")
```

```
[Out] 1/32*(-12*I*x^2*log(x^(1/3)) - 18*I*x^(4/3)*e^(2/3*(3*I*a*n - log(c))/n) +
9*I*x^(2/3)*e^(4/3*(3*I*a*n - log(c))/n) - 2*I*e^(2*(3*I*a*n - log(c))/n))*
e^(-(3*I*a*n - log(c))/n)/x^2
```

Sympy [A] (verification not implemented)

Time = 44.82 (sec) , antiderivative size = 167, normalized size of antiderivative = 0.95

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{9n\sqrt{-\frac{1}{n^2}}\cos\left(a+\frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)}{32x} - \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\cos\left(3a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{8x} - \frac{27\sin\left(a+\frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)}{32x} + \frac{\sin\left(3a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{8x} - \frac{\log\left(cx^n\right)\sin\left(3a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{8nx}$$

```
[In] integrate(sin(a+1/3*ln(c*x**n)*(-1/n**2)**(1/2))**3/x**2,x)
```

```
[Out] -9*n*sqrt(-1/n**2)*cos(a + sqrt(-1/n**2)*log(c*x**n)/3)/(32*x) - sqrt(-1/n*
*2)*log(c*x**n)*cos(3*a + sqrt(-1/n**2)*log(c*x**n))/(8*x) - 27*sin(a + sqr
t(-1/n**2)*log(c*x**n)/3)/(32*x) + sin(3*a + sqrt(-1/n**2)*log(c*x**n))/(8*
x) - log(c*x**n)*sin(3*a + sqrt(-1/n**2)*log(c*x**n))/(8*n*x)
```

Maxima [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.69

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = -\frac{\left(4\,c^{\frac{7}{3\,n}}xe^{\left(\frac{\log(x^n)}{3\,n}+2\,\log(x)\right)}\log\left(x\right)\sin\left(3\,a\right)-2\,c^{\frac{1}{3\,n}}x(x^n)^{\frac{1}{3\,n}}\sin\left(3\,a\right)+9\,c^{\left(\frac{1}{n}\right)}x^2\sin\left(a\right)+18\,c^{\frac{5}{3\,n}}e^{\left(\frac{2\,\log(x^n)}{3\,n}+2\,\log(x)\right)}\sin\left(a\right)\right)e^{\left(-\frac{\log(x^n)}{3\,n}-2\,\log(x)\right)}}{32\,c^{\frac{4}{3\,n}}x}$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^2,x, algorithm="maxima")
```

```
[Out] -1/32*(4*c^(7/3/n)*x*e^(1/3*log(x^n)/n + 2*log(x))*log(x)*sin(3*a) - 2*c^(1
/3/n)*x*(x^n)^(1/3/n)*sin(3*a) + 9*c^(1/n)*x^2*sin(a) + 18*c^(5/3/n)*e^(2/3
*log(x^n)/n + 2*log(x))*sin(a))*e^(-1/3*log(x^n)/n - 2*log(x))/(c^(4/3/n)*x
)
```

Giac [F]

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{\sin\left(\frac{1}{3}\,\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)^3}{x^2}\,dx$$

```
[In] integrate(sin(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^2,x, algorithm="giac")
```

```
[Out] integrate(sin(1/3*sqrt(-1/n^2)*log(c*x^n) + a)^3/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^2}\,dx = \int \frac{{\sin\left(a+\frac{\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}}{3}\right)}^3}{x^2}\,dx$$

```
[In] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/3)^3/x^2,x)
```

```
[Out] int(sin(a + (log(c*x^n)*(-1/n^2)^(1/2))/3)^3/x^2, x)
```

3.46 $\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx$

Optimal result . . . 401
Rubi [A] (verified) . . . 401
Mathematica [F] . . . 403
Maple [A] (verified) . . . 403
Fricas [C] (verification not implemented) . . . 403
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Optimal result

Integrand size = 28, antiderivative size = 178

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx = -\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-2/n}}{32x^2} + \frac{9e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-\frac{2}{3}/n}}{64x^2} - \frac{9e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{2}{3}/n}}{32x^2} - \frac{e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{2/n}\log(x)}{8x^2}$$

```
[Out] -1/32*exp(3*a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x^2/((c*x^n)^(2/n))+9/64*e
xp(a*n*(-1/n^2)^(1/2))*n*(-1/n^2)^(1/2)/x^2/((c*x^n)^(2/3/n))-9/32*n*(c*x^n
)^(2/3/n)*(-1/n^2)^(1/2)/exp(a*n*(-1/n^2)^(1/2))/x^2-1/8*n*(c*x^n)^(2/n)*ln
(x)*(-1/n^2)^(1/2)/exp(3*a*n*(-1/n^2)^(1/2))/x^2
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 178, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used

= {4581, 4577}

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = -\frac{\sqrt{-\frac{1}{n^2}}ne^{3a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-2/n}}{32x^2} + \frac{9\sqrt{-\frac{1}{n^2}}ne^{a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{-\frac{2}{3}/n}}{64x^2} - \frac{9\sqrt{-\frac{1}{n^2}}ne^{-a\sqrt{-\frac{1}{n^2}}n}\left(cx^n\right)^{\frac{2}{3}/n}}{32x^2} - \frac{\sqrt{-\frac{1}{n^2}}ne^{-3a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{2/n}}{8x^2}$$

```
[In] Int[Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^3,x]
```

```
[Out] -1/32*(E^(3*a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(x^2*(c*x^n)^(2/n)) + (9*E^
(a*Sqrt[-n^(-2)]*n)*Sqrt[-n^(-2)]*n)/(64*x^2*(c*x^n)^(2/(3*n))) - (9*Sqrt[-
n^(-2)]*n*(c*x^n)^(2/(3*n)))/(32*E^(a*Sqrt[-n^(-2)]*n)*x^2) - (Sqrt[-n^(-2)
]*n*(c*x^n)^(2/n)*Log[x])/(8*E^(3*a*Sqrt[-n^(-2)]*n)*x^2)
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(cx^n\right)^{2/n}\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx,x,cx^n\right)}{nx^2}$$

$$= -\frac{\left(\sqrt{-\frac{1}{n^2}}\left(cx^n\right)^{2/n}\right)\text{Subst}\left(\int\left(\frac{e^{-3a\sqrt{-\frac{1}{n^2}}n}}{x}+3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1-\frac{8}{3n}}-3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1-\frac{4}{3n}}-e^{3a\sqrt{-\frac{1}{n^2}}n}x^{-4}\right.\right.}{8x^2}$$

$$= -\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-2/n}}{32x^2} + \frac{9e^{a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{-\frac{2}{3}/n}}{64x^2} - \frac{9e^{-a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{\frac{2}{3}/n}}{32x^2} - \frac{e^{-3a\sqrt{-\frac{1}{n^2}}n}\sqrt{-\frac{1}{n^2}}n(cx^n)^{2/n}\log(x)}{8x^2}$$

Mathematica [F]

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx = \int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx$$

```
[In] Integrate[Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^3,x]
[Out] Integrate[Sin[a + (2*Sqrt[-n^(-2)]*Log[c*x^n])/3]^3/x^3, x]
```

Maple [A] (verified)

Time = 88.06 (sec) , antiderivative size = 136, normalized size of antiderivative = 0.76

method	result
parallelrisch	$\frac{-47n\left(n+\frac{40\ln(cx^n)}{47}\right)\sqrt{-\frac{1}{n^2}}\cos\left(2\ln(cx^n)\sqrt{-\frac{1}{n^2}}+3a\right)+(-27n-40\ln(cx^n))\sin\left(2\ln(cx^n)\sqrt{-\frac{1}{n^2}}+3a\right)-45n\left(\cos\left(a+\sqrt{-\right.\right.}{320x^2n}$

```
[In] int(sin(a+2/3*ln(c*x^n)*(-1/n^2)^(1/2))^3/x^3,x,method=_RETURNVERBOSE)
[Out] 1/320*(-47*n*(n+40/47*ln(c*x^n))*(-1/n^2)^(1/2)*cos(2*ln(c*x^n)*(-1/n^2)^(1
/2)+3*a)+(-27*n-40*ln(c*x^n))*sin(2*ln(c*x^n)*(-1/n^2)^(1/2)+3*a)-45*n*(cos
(a+(-1/n^2)^(1/2)*ln((c*x^n)^(2/3)))*n*(-1/n^2)^(1/2)+3*sin(a+(-1/n^2)^(1/2
)*ln((c*x^n)^(2/3)))))/x^2/n
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 87, normalized size of antiderivative = 0.49

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)}{x^3}\,dx = \frac{\left(-24i\,x^4\log\left(x^{\frac{1}{3}}\right) - 18i\,x^{\frac{8}{3}}e^{\left(\frac{2\,(3i\,an-2\,\log(c))}{3\,n}\right)} + 9i\,x^{\frac{4}{3}}e^{\left(\frac{4\,(3i\,an-2\,\log(c))}{3\,n}\right)} - 2i\,e^{\left(\frac{2\,(3i\,an-2\,\log(c))}{n}\right)}\right)e^{\left(-\frac{3i\,an-2\,\log(c)}{n}\right)}}{64\,x^4}$$

```
[In] integrate(sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^3,x, algorithm="fricas")
```

```
[Out] 1/64*(-24*I*x^4*log(x^(1/3)) - 18*I*x^(8/3)*e^(2/3*(3*I*a*n - 2*log(c))/n)
+ 9*I*x^(4/3)*e^(4/3*(3*I*a*n - 2*log(c))/n) - 2*I*e^(2*(3*I*a*n - 2*log(c)
)/n))*e^(-(3*I*a*n - 2*log(c))/n)/x^4
```

Sympy [A] (verification not implemented)

Time = 54.03 (sec) , antiderivative size = 184, normalized size of antiderivative = 1.03

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = -\frac{9n\sqrt{-\frac{1}{n^2}}\cos\left(a+\frac{2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)}{64x^2} - \frac{\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\cos\left(3a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{8x^2} - \frac{27\sin\left(a+\frac{2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)}{3}\right)}{64x^2} + \frac{\sin\left(3a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{16x^2} - \frac{\log\left(cx^n\right)\sin\left(3a+2\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{8nx^2}$$

```
[In] integrate(sin(a+2/3*ln(c*x**n)*(-1/n**2)**(1/2))**3/x**3,x)
```

```
[Out] -9*n*sqrt(-1/n**2)*cos(a + 2*sqrt(-1/n**2)*log(c*x**n)/3)/(64*x**2) - sqrt(
-1/n**2)*log(c*x**n)*cos(3*a + 2*sqrt(-1/n**2)*log(c*x**n))/(8*x**2) - 27*s
in(a + 2*sqrt(-1/n**2)*log(c*x**n)/3)/(64*x**2) + sin(3*a + 2*sqrt(-1/n**2)
*log(c*x**n))/(16*x**2) - log(c*x**n)*sin(3*a + 2*sqrt(-1/n**2)*log(c*x**n)
)/(8*n*x**2)
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 128, normalized size of antiderivative = 0.72

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx = -\frac{\left(8\,c^{\frac{14}{3\,n}}x^2e^{\left(\frac{2\,\log\left(x^n\right)}{3\,n}+4\,\log\left(x\right)\right)}\log\left(x\right)\sin\left(3\,a\right)+9\,c^{\frac{2}{n}}x^4\sin\left(a\right)-2\,c^{\frac{2}{3\,n}}x^2\left(x^n\right)^{\frac{2}{3\,n}}\sin\left(3\,a\right)+18\,c^{\frac{10}{3\,n}}e^{\left(\frac{4\,\log\left(x^n\right)}{3\,n}+4\right.}}{64\,c^{\frac{8}{3\,n}}x^2}$$

```
[In] integrate(sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^3,x, algorithm="maxima")
```

```
[Out] -1/64*(8*c^(14/3/n)*x^2*e^(2/3*log(x^n)/n + 4*log(x))*log(x)*sin(3*a) + 9*c
^(2/n)*x^4*sin(a) - 2*c^(2/3/n)*x^2*(x^n)^(2/3/n)*sin(3*a) + 18*c^(10/3/n)*
e^(4/3*log(x^n)/n + 4*log(x))*sin(a))*e^(-2/3*log(x^n)/n - 4*log(x))/(c^(8/
3/n)*x^2)
```

Giac [F]

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sin\left(\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)+a\right)^3}{x^3}\,dx$$

```
[In] integrate(sin(a+2/3*log(c*x^n)*(-1/n^2)^(1/2))^3/x^3,x, algorithm="giac")
[Out] integrate(sin(2/3*sqrt(-1/n^2)*log(c*x^n) + a)^3/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^3\left(a+\frac{2}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sin\left(a+\frac{2\,\ln\left(c\,x^n\right)\,\sqrt{-\frac{1}{n^2}}}{3}\right)^3}{x^3}\,dx$$

```
[In] int(sin(a + (2*log(c*x^n)*(-1/n^2)^(1/2))/3)^3/x^3,x)
[Out] int(sin(a + (2*log(c*x^n)*(-1/n^2)^(1/2))/3)^3/x^3, x)
```

3.47 $\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$

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Optimal result

Integrand size = 28, antiderivative size = 112

$$\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{e^{\frac{a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{2}}}{4\sqrt{-(1+m)^2}} + \frac{e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}(1+m)x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\log(x)}{2\sqrt{-(1+m)^2}}$$

```
[Out] -1/4*exp(a*(1+m)/(-(1+m)^2)^(1/2))*x^(1+m)*(c*x^2)^(1/2+1/2*m)/(-(1+m)^2)^(
1/2)+1/2*exp(a*(-(1+m)^2)^(1/2)/(1+m))*(1+m)*x^(1+m)*(c*x^2)^(-1/2-1/2*m)*l
n(x)/(-(1+m)^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.21 (sec) , antiderivative size = 112, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used = {4581, 4577}

$$\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{(m+1)e^{\frac{a\sqrt{-(m+1)^2}}{m+1}}x^{m+1}\log(x)\left(cx^2\right)^{\frac{1}{2}(-m-1)}}{2\sqrt{-(m+1)^2}} - \frac{e^{\frac{a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\left(cx^2\right)^{\frac{m+1}{2}}}{4\sqrt{-(m+1)^2}}$$

```
[In] Int[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/2],x]
```

```
[Out] -1/4*(E^((a*(1 + m))/Sqrt[-(1 + m)^2])*x^(1 + m)*(c*x^2)^((1 + m)/2))/Sqrt[
-(1 + m)^2] + (E^((a*Sqrt[-(1 + m)^2])/(1 + m))*(1 + m)*x^(1 + m)*(c*x^2)^(
(-1 - m)/2)*Log[x])/(2*Sqrt[-(1 + m)^2])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{1}{2}\left(x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{2}}\sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log(x)\right)\,dx,x,cx^2\right)$$

$$=\frac{\left((1+m)x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int\left(\frac{e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}}{x}-e^{\frac{a(1+m)}{\sqrt{-(1+m)^2}}}x^m\right)\,dx,x,cx^2\right)}{4\sqrt{-(1+m)^2}}$$

$$=-\frac{e^{\frac{a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{2}}}{4\sqrt{-(1+m)^2}}+\frac{e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}(1+m)x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\log(x)}{2\sqrt{-(1+m)^2}}$$

Mathematica [F]

$$\int x^m\sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx=\int x^m\sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$$

```
[In] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/2],x]
[Out] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/2], x]
```

Maple [F]

$$\int x^{m} \sin\left(a+\frac{\ln\left(c\,x^{2}\right)\sqrt{-\left(1+m\right)^{2}}}{2}\right)dx$$

[In] int(x^m*sin(a+1/2*ln(c*x^2)*(-(1+m)^2)^(1/2)),x)

[Out] int(x^m*sin(a+1/2*ln(c*x^2)*(-(1+m)^2)^(1/2)),x)

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.46

$$\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{\left(i\,x^2x^{2\,m}-2\,(i\,m+i)e^{\left(-(m+1)\log(c)+2i\,a\right)}\log\left(x\right)\right)e^{\left(\frac{1}{2}\,(m+1)\log(c)-i\,a\right)}}{4\,(m+1)}$$

[In] integrate(x^m*sin(a+1/2*log(c*x^2)*(-(1+m)^2)^(1/2)),x, algorithm="fricas")

[Out] 1/4*(I*x^2*x^(2*m) - 2*(I*m + I)*e^(-(m + 1)*log(c) + 2*I*a)*log(x))*e^(1/2 *(m + 1)*log(c) - I*a)/(m + 1)

Sympy [F]

$$\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \int x^{m}\sin\left(a+\frac{\sqrt{-m^{2}-2m-1}\log\left(cx^{2}\right)}{2}\right)dx$$

[In] integrate(x**m*sin(a+1/2*ln(c*x**2)*(-(1+m)**2)**(1/2)),x)

[Out] Integral(x**m*sin(a + sqrt(-m**2 - 2*m - 1)*log(c*x**2)/2), x)

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.43

$$\int x^m \sin\left(a+\frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{c^{m+1}x^2x^{2\,m}\sin\left(a\right)+2\left(m\sin\left(a\right)+\sin\left(a\right)\right)\log\left(x\right)}{4\left(c^{\frac{1}{2}\,m}m+c^{\frac{1}{2}\,m}\right)\sqrt{c}}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^2)*(-(1+m)^2)^(1/2)),x, algorithm="maxima")
```

```
[Out] 1/4*(c^(m + 1)*x^2*x^(2*m)*sin(a) + 2*(m*sin(a) + sin(a))*log(x))/((c^(1/2*
m)*m + c^(1/2*m))*sqrt(c))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.58 (sec) , antiderivative size = 189, normalized size of antiderivative = 1.69

$$\int x^m \sin\left(a + \frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{i\,mxx^m e^{\left(\frac{1}{2}\,|m+1|\log(c)+|m+1|\log(x)-i\,a\right)} - i\,xx^m|m+1|e^{\left(\frac{1}{2}\,|m+1|\log(c)+|m+1|\log(x)-i\,a\right)} - i\,mxx^m e^{\left(-\frac{1}{2}\,|m+1|\log(c)\right.}}{}$$

```
[In] integrate(x^m*sin(a+1/2*log(c*x^2)*(-(1+m)^2)^(1/2)),x, algorithm="giac")
```

```
[Out] -1/2*(I*m*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - I*a) - I*x*x
^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - I*a) - I*m*x*x
^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + I*a) - I*x*x^m*abs(m + 1
)*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + I*a) + I*x*x^m*e^(1/2*abs
(m + 1)*log(c) + abs(m + 1)*log(x) - I*a) - I*x*x^m*e^(-1/2*abs(m + 1)*log(
c) - abs(m + 1)*log(x) + I*a))/((m + 1)^2 - m^2 - 2*m - 1)
```

Mupad [B] (verification not implemented)

Time = 28.92 (sec) , antiderivative size = 139, normalized size of antiderivative = 1.24

$$\int x^m \sin\left(a + \frac{1}{2}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{\frac{1}{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}\,x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(x^2\right)}^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}\,1\mathrm{i}}{2\,m+2-\sqrt{-{\left(m+1\right)}^2}\,2\mathrm{i}} - \frac{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}\,x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(x^2\right)}^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}\,1\mathrm{i}}{2\,m+2+\sqrt{-{\left(m+1\right)}^2}\,2\mathrm{i}}$$

```
[In] int(x^m*sin(a + (log(c*x^2)*(-(m + 1)^2)^(1/2))/2),x)
```

```
[Out] (1/c^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*x*x^m*exp(-a*1i)/(x^2)^(((- 2*m - m^2
 - 1)^(1/2)*1i)/2)*1i)/(2*m - (-(m + 1)^2)^(1/2)*2i + 2) - (c^(((- 2*m - m^
2 - 1)^(1/2)*1i)/2)*x*x^m*exp(a*1i)*(x^2)^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*
1i)/(2*m + (-(m + 1)^2)^(1/2)*2i + 2)
```

3.48 $\int \sin\left(a+\frac{1}{2}i\log\left(cx^2\right)\right)\,dx$

Optimal result 410
Rubi [A] (verified) 410
Mathematica [A] (verified) 411
Maple [B] (verified) 411
Fricas [A] (verification not implemented) 412
Sympy [F] 412
Maxima [A] (verification not implemented) 412
Giac [A] (verification not implemented) 412
Mupad [F(-1)] 413

Optimal result

Integrand size = 15, antiderivative size = 52

$$\int \sin\left(a+\frac{1}{2}i\log\left(cx^2\right)\right)\,dx=\frac{ice^{-ia}x^3}{4\sqrt{cx^2}}-\frac{ie^{ia}x\log(x)}{2\sqrt{cx^2}}$$

```
[Out] 1/4*I*c*x^3/exp(I*a)/(c*x^2)^(1/2)-1/2*I*exp(I*a)*x*ln(x)/(c*x^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 52, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {4571, 4577}

$$\int \sin\left(a+\frac{1}{2}i\log\left(cx^2\right)\right)\,dx=\frac{ie^{-ia}cx^3}{4\sqrt{cx^2}}-\frac{ie^{ia}x\log(x)}{2\sqrt{cx^2}}$$

```
[In] Int[Sin[a + (I/2)*Log[c*x^2]],x]
[Out] ((I/4)*c*x^3)/(E^(I*a)*Sqrt[c*x^2]) - ((I/2)*E^(I*a)*x*Log[x])/Sqrt[c*x^2]
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
```

```
+ 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{x\text{Subst}\left(\int \frac{\sin\left(a+\frac{1}{2}i\log(x)\right)}{\sqrt{x}}\,dx, x, cx^2\right)}{2\sqrt{cx^2}}\\ &= -\frac{(ix)\text{Subst}\left(\int \left(-e^{-ia}+\frac{e^{ia}}{x}\right)\,dx, x, cx^2\right)}{4\sqrt{cx^2}}\\ &= \frac{ice^{-ia}x^3}{4\sqrt{cx^2}}-\frac{ie^{ia}x\log(x)}{2\sqrt{cx^2}}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.85

$$\int \sin\left(a+\frac{1}{2}i\log\left(cx^2\right)\right)\,dx = \frac{x(i\cos(a)\left(cx^2-2\log(x)\right)+\left(cx^2+2\log(x)\right)\sin(a))}{4\sqrt{cx^2}}$$

```
[In] Integrate[Sin[a + (I/2)*Log[c*x^2]],x]
[Out] (x*(I*Cos[a]*(c*x^2 - 2*Log[x]) + (c*x^2 + 2*Log[x])*Sin[a]))/(4*Sqrt[c*x^2
])
```

Maple [B] (verified)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 105 vs. 2(40) = 80.

Time = 1.10 (sec) , antiderivative size = 106, normalized size of antiderivative = 2.04

method	result	size
norman	$\frac{\frac{ix}{2}-\frac{ix\tan\left(\frac{a}{2}+\frac{i\ln\left(c\,x^2\right)}{4}\right)^2}{2}+\frac{x\ln\left(c\,x^2\right)\tan\left(\frac{a}{2}+\frac{i\ln\left(c\,x^2\right)}{4}\right)}{2}-\frac{ix\ln\left(c\,x^2\right)}{4}+\frac{ix\ln\left(c\,x^2\right)\tan\left(\frac{a}{2}+\frac{i\ln\left(c\,x^2\right)}{4}\right)^2}{4}}{1+\tan\left(\frac{a}{2}+\frac{i\ln\left(c\,x^2\right)}{4}\right)^2}$	106

```
[In] int(sin(a+1/2*I*ln(c*x^2)),x,method=_RETURNVERBOSE)
[Out] (1/2*I*x-1/2*I*x*tan(1/2*a+1/4*I*ln(c*x^2))^2+1/2*x*ln(c*x^2)*tan(1/2*a+1/4
*I*ln(c*x^2))-1/4*I*x*ln(c*x^2)+1/4*I*x*ln(c*x^2)*tan(1/2*a+1/4*I*ln(c*x^2)
)^2)/(1+tan(1/2*a+1/4*I*ln(c*x^2))^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.46

$$\int \sin \left(a+\frac{1}{2} i \log \left(c x^2\right)\right) d x=\frac{\left(i c x^2-2 i e^{(2 i a)} \log (x)\right) e^{(-i a)}}{4 \sqrt{c}}$$

```
[In] integrate(sin(a+1/2*I*log(c*x^2)),x, algorithm="fricas")
[Out] 1/4*(I*c*x^2 - 2*I*e^(2*I*a)*log(x))*e^(-I*a)/sqrt(c)
```

Sympy [F]

$$\int \sin \left(a+\frac{1}{2} i \log \left(c x^2\right)\right) d x=\int \sin \left(a+\frac{i \log \left(c x^2\right)}{2}\right) d x$$

```
[In] integrate(sin(a+1/2*I*ln(c*x**2)),x)
[Out] Integral(sin(a + I*log(c*x**2)/2), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 31, normalized size of antiderivative = 0.60

$$\int \sin \left(a+\frac{1}{2} i \log \left(c x^2\right)\right) d x=\frac{c x^2(i \cos (a)+\sin (a))-2(i \cos (a)-\sin (a)) \log (x)}{4 \sqrt{c}}$$

```
[In] integrate(sin(a+1/2*I*log(c*x^2)),x, algorithm="maxima")
[Out] 1/4*(c*x^2*(I*cos(a) + sin(a)) - 2*(I*cos(a) - sin(a))*log(x))/sqrt(c)
```

Giac [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.46

$$\int \sin \left(a+\frac{1}{2} i \log \left(c x^2\right)\right) d x=-\frac{-i c x^2 e^{(-i a)}+2 i e^{(i a)} \log (x)}{4 \sqrt{c}}$$

```
[In] integrate(sin(a+1/2*I*log(c*x^2)),x, algorithm="giac")
[Out] -1/4*(-I*c*x^2*e^(-I*a) + 2*I*e^(I*a)*log(x))/sqrt(c)
```

Mupad [F(-1)]

Timed out.

$$\int \sin \left(a+\frac{1}{2} i \log \left(c x^2\right)\right) \, dx=\int \sin \left(a+\frac{\ln \left(c\,x^2\right)\,1\mathrm{i}}{2}\right) \,d x$$

```
[In] int(sin(a + (log(c*x^2)*1i)/2),x)
[Out] int(sin(a + (log(c*x^2)*1i)/2), x)
```

3.49 $\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$

Optimal result 414
Rubi [A] (verified) 414
Mathematica [F] 415
Maple [F] 416
Fricas [C] (verification not implemented) 416
Sympy [F] 416
Maxima [A] (verification not implemented) 417
Giac [C] (verification not implemented) 417
Mupad [B] (verification not implemented) 418

Optimal result

Integrand size = 30, antiderivative size = 106

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{x^{1+m}}{2(1+m)}-\frac{e^{\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{2}}}{8(1+m)} - \frac{1}{4}e^{-\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\log(x)$$

```
[Out] 1/2*x^(1+m)/(1+m)-1/8*exp(2*a*(1+m)/(-(1+m)^2)^(1/2))*x^(1+m)*(c*x^2)^(1/2+
1/2*m)/(1+m)-1/4*x^(1+m)*(c*x^2)^(-1/2-1/2*m)*ln(x)/exp(2*a*(1+m)/(-(1+m)^2
)^(1/2))
```

Rubi [A] (verified)

Time = 0.17 (sec) , antiderivative size = 106, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4581, 4577}

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{e^{\frac{2a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\left(cx^2\right)^{\frac{m+1}{2}}}{8(m+1)} - \frac{1}{4}e^{-\frac{2a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\log(x)\left(cx^2\right)^{\frac{1}{2}(-m-1)} + \frac{x^{m+1}}{2(m+1)}$$

```
[In] Int[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/4]^2,x]
```

```
[Out] x^(1 + m)/(2*(1 + m)) - (E^((2*a*(1 + m))/Sqrt[-(1 + m)^2])*x^(1 + m)*(c*x^
2)^((1 + m)/2))/(8*(1 + m)) - (x^(1 + m)*(c*x^2)^((-1 - m)/2)*Log[x])/(4*E^
((2*a*(1 + m))/Sqrt[-(1 + m)^2]))
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{1}{2}\left(x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{2}}\sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log(x)\right)dx,x,cx^2\right)$$

$$= -\left(\frac{1}{8}\left(x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int\left(\frac{e^{-\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}}{x}-2x^{\frac{1}{2}(-1+m)}+e^{\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}x^m\right)dx,x,cx^2\right)\right)$$

$$= \frac{x^{1+m}}{2(1+m)}-\frac{e^{\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{2}}}{8(1+m)}-\frac{1}{4}e^{-\frac{2a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\log(x)$$

Mathematica [F]

$$\int x^m\sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)dx=\int x^m\sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)dx$$

```
[In] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/4]^2,x]
[Out] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/4]^2, x]
```

Maple [F]

$$\int x^{m}\sin\left(a+\frac{\ln\left(c\,x^{2}\right)\sqrt{-\left(1+m\right)^{2}}}{4}\right)^{2}dx$$

[In] int(x^m*sin(a+1/4*ln(c*x^2)*(-(1+m)^2)^(1/2))^2,x)

[Out] int(x^m*sin(a+1/4*ln(c*x^2)*(-(1+m)^2)^(1/2))^2,x)

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 75, normalized size of antiderivative = 0.71

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{\left(2\,(m+1)e^{\left(-(m+1)\log(c)-2\,(m+1)\log(x)+4i\,a\right)}\log\left(x\right)-4\,e^{\left(-\frac{1}{2}\,(m+1)\log(c)-(m+1)\log(x)+2i\,a\right)}+1\right)e^{\left(\frac{1}{2}\,(m+1)\log(c)+2\,(\right.}}{8\,(m+1)}$$

[In] integrate(x^m*sin(a+1/4*log(c*x^2)*(-(1+m)^2)^(1/2))^2,x, algorithm="fricas
")

[Out] -1/8*(2*(m + 1)*e^(-(m + 1)*log(c) - 2*(m + 1)*log(x) + 4*I*a)*log(x) - 4*e
^(-1/2*(m + 1)*log(c) - (m + 1)*log(x) + 2*I*a) + 1)*e^(1/2*(m + 1)*log(c)
+ 2*(m + 1)*log(x) - 2*I*a)/(m + 1)

Sympy [F]

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \int x^{m}\sin^{2}\left(a+\frac{\sqrt{-m^{2}-2m-1}\log\left(cx^{2}\right)}{4}\right)dx$$

[In] integrate(x**m*sin(a+1/4*ln(c*x**2)*(-(1+m)**2)**(1/2))**2,x)

[Out] Integral(x**m*sin(a + sqrt(-m**2 - 2*m - 1)*log(c*x**2)/4)**2, x)

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 134, normalized size of antiderivative = 1.26

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{c^{m+1}x^2x^{2m}\cos(2a) - 4\left(\cos(2a)^2+\sin(2a)^2\right)c^{\frac{1}{2}m+\frac{1}{2}}xx^m + 2\left(\cos(2a)^3+\cos(2a)\sin(2a)^2+\left(\cos(\right.\right.}{8\left(\left(\cos(2a)^2+\sin(2a)^2\right)c^{\frac{1}{2}m}m+\left(\cos(2a)^2+\sin(2a)^2\right)c^{\frac{1}{2}m}\right)\sqrt{c}}$$

```
[In] integrate(x^m*sin(a+1/4*log(c*x^2)*(-(1+m)^2)^(1/2))^2,x, algorithm="maxima
")
```

```
[Out] -1/8*(c^(m + 1)*x^2*x^(2*m)*cos(2*a) - 4*(cos(2*a)^2 + sin(2*a)^2)*c^(1/2*m
 + 1/2)*x*x^m + 2*(cos(2*a)^3 + cos(2*a)*sin(2*a)^2 + (cos(2*a)^3 + cos(2*a
)*sin(2*a)^2)*m)*log(x))/(((cos(2*a)^2 + sin(2*a)^2)*c^(1/2*m)*m + (cos(2*a
)^2 + sin(2*a)^2)*c^(1/2*m))*sqrt(c))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 1.40 (sec) , antiderivative size = 350, normalized size of antiderivative = 3.30

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{m^2xx^me^{\left(\frac{1}{2}|m+1|\log(c)+|m+1|\log(x)-2ia\right)} - mxx^m|m+1|e^{\left(\frac{1}{2}|m+1|\log(c)+|m+1|\log(x)-2ia\right)} + m^2xx^me^{\left(-\frac{1}{2}|m+1|\log(c)\right.}}{}$$

```
[In] integrate(x^m*sin(a+1/4*log(c*x^2)*(-(1+m)^2)^(1/2))^2,x, algorithm="giac")
```

```
[Out] 1/4*(m^2*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - 2*I*a) - m*x*
x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - 2*I*a) + m^2*
x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 2*I*a) + m*x*x^m*abs(
m + 1)*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 2*I*a) + 2*(m + 1)^2
*x*x^m - 2*m^2*x*x^m + 2*m*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(
x) - 2*I*a) - x*x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x)
 - 2*I*a) + 2*m*x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 2*I*a
) + x*x^m*abs(m + 1)*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 2*I*a)
 - 4*m*x*x^m + x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - 2*I*a)
+ x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 2*I*a) - 2*x*x^m)/(
(m + 1)^2*m - m^3 + (m + 1)^2 - 3*m^2 - 3*m - 1)
```

Mupad [B] (verification not implemented)

Time = 27.99 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.41

$$\int x^m \sin^2\left(a+\frac{1}{4}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \frac{x\,x^m}{2\,m+2} - \frac{\frac{1}{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}\,x\,x^m\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(x^2\right)}^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}}{4\,m+4-\sqrt{-{\left(m+1\right)}^2}\,4\mathrm{i}} - \frac{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}\,x\,x^m\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(x^2\right)}^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}{4\,m+4+\sqrt{-{\left(m+1\right)}^2}\,4\mathrm{i}}$$

```
[In] int(x^m*sin(a + (log(c*x^2)*(-(m + 1)^2)^(1/2))/4)^2,x)
```

```
[Out] (x*x^m)/(2*m + 2) - (1/c^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*x*x^m*exp(-a*2i)/
(x^2)^(((- 2*m - m^2 - 1)^(1/2)*1i)/2))/(4*m - (-(m + 1)^2)^(1/2)*4i + 4) -
 (c^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*x*x^m*exp(a*2i)*(x^2)^(((- 2*m - m^2 -
 1)^(1/2)*1i)/2))/(4*m + (-(m + 1)^2)^(1/2)*4i + 4)
```

3.50 $\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx$

Optimal result 419
Rubi [A] (verified) 419
Mathematica [A] (verified) 420
Maple [B] (verified) 420
Fricas [B] (verification not implemented) 421
Sympy [F] 421
Maxima [A] (verification not implemented) 422
Giac [A] (verification not implemented) 422
Mupad [F(-1)] 422

Optimal result

Integrand size = 17, antiderivative size = 53

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx=\frac{x}{2}-\frac{ce^{-2ia}x^3}{8\sqrt{cx^2}}-\frac{e^{2ia}x\log(x)}{4\sqrt{cx^2}}$$

```
[Out] 1/2*x-1/8*c*x^3/exp(2*I*a)/(c*x^2)^(1/2)-1/4*exp(2*I*a)*x*ln(x)/(c*x^2)^(1/
2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 53, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4571, 4577}

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx=-\frac{e^{2ia}x\log(x)}{4\sqrt{cx^2}}-\frac{e^{-2ia}cx^3}{8\sqrt{cx^2}}+\frac{x}{2}$$

```
[In] Int[Sin[a + (I/4)*Log[c*x^2]]^2,x]
```

```
[Out] x/2 - (c*x^3)/(8*E^((2*I)*a)*Sqrt[c*x^2]) - (E^((2*I)*a)*x*Log[x])/(4*Sqrt[
c*x^2])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
```

```
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{x\text{Subst}\left(\int \frac{\sin^2\left(a+\frac{1}{4}i\log(x)\right)}{\sqrt{x}}\,dx, x, cx^2\right)}{2\sqrt{cx^2}} \\ &= -\frac{x\text{Subst}\left(\int \left(e^{-2ia}+\frac{e^{2ia}}{x}-\frac{2}{\sqrt{x}}\right)\,dx, x, cx^2\right)}{8\sqrt{cx^2}} \\ &= \frac{x}{2}-\frac{ce^{-2ia}x^3}{8\sqrt{cx^2}}-\frac{e^{2ia}x\log(x)}{4\sqrt{cx^2}}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 60, normalized size of antiderivative = 1.13

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx = \frac{x\left(4\sqrt{cx^2}-\cos(2a)\left(cx^2+2\log(x)\right)+i\left(cx^2-2\log(x)\right)\sin(2a)\right)}{8\sqrt{cx^2}}$$

```
[In] Integrate[Sin[a + (I/4)*Log[c*x^2]]^2,x]
```

```
[Out] (x*(4*Sqrt[c*x^2] - Cos[2*a]*(c*x^2 + 2*Log[x]) + I*(c*x^2 - 2*Log[x])*Sin[
2*a]))/(8*Sqrt[c*x^2])
```

Maple [B] (verified)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 172 vs. $2(41) = 82$.

Time = 2.57 (sec) , antiderivative size = 173, normalized size of antiderivative = 3.26

method	result
norman	$\frac{\frac{x}{4}+\frac{5x\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{8}\right)^2}{2}+\frac{x\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{8}\right)^4}{4}-\frac{x\ln\left(cx^2\right)}{8}+\frac{3x\ln\left(cx^2\right)\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{8}\right)^2}{4}-\frac{x\ln\left(cx^2\right)\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{8}\right)^4}{8}-\frac{ix\ln(}{}}{\left(1+\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{8}\right)^2\right)^2}$

```
[In] int(sin(a+1/4*I*ln(c*x^2))^2,x,method=_RETURNVERBOSE)
```

```
[Out] (1/4*x+5/2*x*tan(1/2*a+1/8*I*ln(c*x^2))^2+1/4*x*tan(1/2*a+1/8*I*ln(c*x^2))^
4-1/8*x*ln(c*x^2)+3/4*x*ln(c*x^2)*tan(1/2*a+1/8*I*ln(c*x^2))^2-1/8*x*ln(c*x
^2)*tan(1/2*a+1/8*I*ln(c*x^2))^4-1/2*I*x*ln(c*x^2)*tan(1/2*a+1/8*I*ln(c*x^2
))+1/2*I*x*ln(c*x^2)*tan(1/2*a+1/8*I*ln(c*x^2))^3)/(1+tan(1/2*a+1/8*I*ln(c*
x^2))^2)^2
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 145 vs. $2(37) = 74$.

Time = 0.47 (sec) , antiderivative size = 145, normalized size of antiderivative = 2.74

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx$$
$$= \frac{\left(4\,x^2e^{(2i\,a)} - \frac{xe^{(4i\,a)}\log\left(\frac{\left(\sqrt{cx^2}\left(x^2+1\right)e^{(2i\,a)}+\frac{\left(cx^3-cx\right)e^{(2i\,a)}}{\sqrt{c}}\right)e^{(-2i\,a)}}{8\,x^2}\right)}{\sqrt{c}} + \frac{xe^{(4i\,a)}\log\left(\frac{\left(\sqrt{cx^2}\left(x^2+1\right)e^{(2i\,a)}-\frac{\left(cx^3-cx\right)e^{(2i\,a)}}{\sqrt{c}}\right)e^{(-2i\,a)}}{8\,x^2}\right)}{\sqrt{c}}\right.}{8\,x}$$

```
[In] integrate(sin(a+1/4*I*log(c*x^2))^2,x, algorithm="fricas")
```

```
[Out] 1/8*(4*x^2*e^(2*I*a) - x*e^(4*I*a)*log(1/8*(sqrt(c*x^2)*(x^2 + 1)*e^(2*I*a)
 + (c*x^3 - c*x)*e^(2*I*a)/sqrt(c))*e^(-2*I*a)/x^2)/sqrt(c) + x*e^(4*I*a)*l
og(1/8*(sqrt(c*x^2)*(x^2 + 1)*e^(2*I*a) - (c*x^3 - c*x)*e^(2*I*a)/sqrt(c))*
e^(-2*I*a)/x^2)/sqrt(c) - sqrt(c*x^2)*(x^2 - 1))*e^(-2*I*a)/x
```

Sympy [F]

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx = \int \sin^2\left(a+\frac{i\log\left(cx^2\right)}{4}\right)\,dx$$

```
[In] integrate(sin(a+1/4*I*ln(c*x**2))**2,x)
```

```
[Out] Integral(sin(a + I*log(c*x**2)/4)**2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 47, normalized size of antiderivative = 0.89

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx = \frac{4\,cx-\left(cx^2(\cos\left(2\,a\right)-i\,\sin\left(2\,a\right))+2\left(\cos\left(2\,a\right)+i\,\sin\left(2\,a\right)\right)\log\left(x\right)\right)\sqrt{c}}{8\,c}$$

```
[In] integrate(sin(a+1/4*I*log(c*x^2))^2,x, algorithm="maxima")
[Out] 1/8*(4*c*x - (c*x^2*(cos(2*a) - I*sin(2*a)) + 2*(cos(2*a) + I*sin(2*a))*log
(x))*sqrt(c))/c
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.51

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx = \frac{1}{2}\,x-\frac{cx^2e^{(-2i\,a)}+2\,e^{(2i\,a)}\log\left(x\right)}{8\,\sqrt{c}}$$

```
[In] integrate(sin(a+1/4*I*log(c*x^2))^2,x, algorithm="giac")
[Out] 1/2*x - 1/8*(c*x^2*e^(-2*I*a) + 2*e^(2*I*a)*log(x))/sqrt(c)
```

Mupad [F(-1)]

Timed out.

$$\int \sin^2\left(a+\frac{1}{4}i\log\left(cx^2\right)\right)\,dx = \int \sin\left(a+\frac{\ln\left(c\,x^2\right)\,1\mathrm{i}}{4}\right)^2\,dx$$

```
[In] int(sin(a + (log(c*x^2)*1i)/4)^2,x)
[Out] int(sin(a + (log(c*x^2)*1i)/4)^2, x)
```

3.51 $\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$

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Optimal result

Integrand size = 30, antiderivative size = 218

$$\begin{aligned}\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx &= \frac{9e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}x^{1+m}\left(cx^2\right)^{\frac{1}{6}(-1-m)}}{16\sqrt{-(1+m)^2}}-\frac{9e^{\frac{a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{6}}}{32\sqrt{-(1+m)^2}}\\ &\quad+\frac{e^{\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}\left(cx^2\right)^{\frac{1+m}{2}}}{16\sqrt{-(1+m)^2}}-\frac{e^{-\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}(1+m)x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\log(x)}{8\sqrt{-(1+m)^2}}\end{aligned}$$

```
[Out] 9/16*exp(a*(-(1+m)^2)^(1/2)/(1+m))*x^(1+m)*(c*x^2)^(-1/6-1/6*m)/(-(1+m)^2)^
(1/2)-9/32*exp(a*(1+m)/(-(1+m)^2)^(1/2))*x^(1+m)*(c*x^2)^(1/6+1/6*m)/(-(1+m
)^2)^(1/2)+1/16*exp(3*a*(1+m)/(-(1+m)^2)^(1/2))*x^(1+m)*(c*x^2)^(1/2+1/2*m)
/(-(1+m)^2)^(1/2)-1/8*(1+m)*x^(1+m)*(c*x^2)^(-1/2-1/2*m)*ln(x)/exp(3*a*(1+m
)/(-(1+m)^2)^(1/2))/(-(1+m)^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.33 (sec) , antiderivative size = 218, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used

$= \{4581, 4577\}$

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)dx$$
$$= \frac{9e^{\frac{a\sqrt{-(m+1)^2}}{m+1}}x^{m+1}\left(cx^2\right)^{\frac{1}{6}(-m-1)}}{16\sqrt{-(m+1)^2}} - \frac{9e^{\frac{a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\left(cx^2\right)^{\frac{m+1}{6}}}{32\sqrt{-(m+1)^2}}$$
$$+ \frac{e^{\frac{3a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\left(cx^2\right)^{\frac{m+1}{2}}}{16\sqrt{-(m+1)^2}} - \frac{(m+1)e^{-\frac{3a(m+1)}{\sqrt{-(m+1)^2}}}x^{m+1}\log(x)\left(cx^2\right)^{\frac{1}{2}(-m-1)}}{8\sqrt{-(m+1)^2}}$$

```
[In] Int[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/6]^3,x]
```

```
[Out] (9*E^((a*Sqrt[-(1 + m)^2])/(1 + m))*x^(1 + m)*(c*x^2)^((-1 - m)/6))/(16*Sqr
t[-(1 + m)^2]) - (9*E^((a*(1 + m))/Sqrt[-(1 + m)^2])*x^(1 + m)*(c*x^2)^((1
+ m)/6))/(32*Sqrt[-(1 + m)^2]) + (E^((3*a*(1 + m))/Sqrt[-(1 + m)^2])*x^(1 +
 m)*(c*x^2)^((1 + m)/2))/(16*Sqrt[-(1 + m)^2]) - ((1 + m)*x^(1 + m)*(c*x^2)
^((-1 - m)/2)*Log[x])/(8*E^((3*a*(1 + m))/Sqrt[-(1 + m)^2])*Sqrt[-(1 + m)^2
])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{1}{2}\left(x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{2}}\sin^3\left(a + \frac{1}{6}\sqrt{-(1+m)^2}\log(x)\right)dx, x, cx^2\right)$$

$$= \frac{\left(\sqrt{-(1+m)^2}x^{1+m}\left(cx^2\right)^{\frac{1}{2}(-1-m)}\right)\text{Subst}\left(\int\left(\frac{e^{-\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}}{x} - 3e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}x^{\frac{1}{3}(-2+m)} - e^{\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}x^m + \right.\right.}{16(1+m)}$$

$$= \frac{9e^{\frac{a\sqrt{-(1+m)^2}}{1+m}}x^{1+m}(cx^2)^{\frac{1}{6}(-1-m)}}{16\sqrt{-(1+m)^2}} - \frac{9e^{\frac{a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}(cx^2)^{\frac{1+m}{6}}}{32\sqrt{-(1+m)^2}} + \frac{e^{\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}x^{1+m}(cx^2)^{\frac{1+m}{2}}}{16\sqrt{-(1+m)^2}} + \frac{e^{-\frac{3a(1+m)}{\sqrt{-(1+m)^2}}}\sqrt{-(1+m)^2}x^{1+m}(cx^2)^{\frac{1}{2}(-1-m)}\log(x)}{8(1+m)}$$

Mathematica [F]

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = \int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$$

```
[In] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/6]^3,x]
[Out] Integrate[x^m*Sin[a + (Sqrt[-(1 + m)^2]*Log[c*x^2])/6]^3, x]
```

Maple [F]

$$\int x^m \sin\left(a+\frac{\ln\left(c\,x^2\right)\sqrt{-\left(1+m\right)^2}}{6}\right)^3 dx$$

```
[In] int(x^m*sin(a+1/6*ln(c*x^2)*(-(1+m)^2)^(1/2))^3,x)
[Out] int(x^m*sin(a+1/6*ln(c*x^2)*(-(1+m)^2)^(1/2))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 98, normalized size of antiderivative = 0.45

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx = -\frac{\left(4\,(-i\,m-i)e^{\left(-(m+1)\log(c)-2\,(m+1)\log(x)+6i\,a\right)}\log\left(x\right) - 9i\,e^{\left(-\frac{1}{3}\,(m+1)\log(c)-\frac{2}{3}\,(m+1)\log(x)+2i\,a\right)} + 18i\,e^{\left(-\frac{2}{3}\,(m+\right.}}{32\,(m+1)}$$

```
[In] integrate(x^m*sin(a+1/6*log(c*x^2)*(-(1+m)^2)^(1/2))^3,x, algorithm="fricas
")
[Out] -1/32*(4*(-I*m - I)*e^(-(m + 1)*log(c) - 2*(m + 1)*log(x) + 6*I*a)*log(x) -
 9*I*e^(-1/3*(m + 1)*log(c) - 2/3*(m + 1)*log(x) + 2*I*a) + 18*I*e^(-2/3*(m
 + 1)*log(c) - 4/3*(m + 1)*log(x) + 4*I*a) + 2*I)*e^(1/2*(m + 1)*log(c) + 2
*(m + 1)*log(x) - 3*I*a)/(m + 1)
```

Sympy [F]

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$$
$$=\int x^m \sin^3\left(a+\frac{\sqrt{-m^2-2m-1}\log\left(cx^2\right)}{6}\right)dx$$

```
[In] integrate(x**m*sin(a+1/6*ln(c*x**2)*(-(1+m)**2)**(1/2))**3,x)
```

```
[Out] Integral(x**m*sin(a + sqrt(-m**2 - 2*m - 1)*log(c*x**2)/6)**3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 206, normalized size of antiderivative = 0.94

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$$
$$=\frac{9\left(\cos\left(2\,a\right)\sin\left(3\,a\right)-\cos\left(3\,a\right)\sin\left(2\,a\right)\right)c^{\frac{5}{6}\,m+\frac{5}{6}}x^{\frac{5}{3}}x^{\frac{4}{3}\,m}+18\left(\cos\left(3\,a\right)\sin\left(4\,a\right)-\cos\left(4\,a\right)\sin\left(3\,a\right)\right)c^{\frac{1}{2}\,m+\frac{1}{2}}xx}{32\left(\left(\cos\left(3\,a\right)^2+\sin\left(3\,a\right.\right.\right.}$$

```
[In] integrate(x^m*sin(a+1/6*log(c*x^2)*(-(1+m)^2)^(1/2))^3,x, algorithm="maxima
")
```

```
[Out] 1/32*(9*(cos(2*a)*sin(3*a) - cos(3*a)*sin(2*a))*c^(5/6*m + 5/6)*x^(5/3)*x^(
4/3*m) + 18*(cos(3*a)*sin(4*a) - cos(4*a)*sin(3*a))*c^(1/2*m + 1/2)*x*x^(2/
3*m) - 2*(c^(7/6*m + 1)*x^2*x^(2*m)*sin(3*a) + 2*((cos(3*a)^2*sin(3*a) + si
n(3*a)^3)*c^(1/6*m)*m + (cos(3*a)^2*sin(3*a) + sin(3*a)^3)*c^(1/6*m))*log(x
))*c^(1/6)*x^(1/3))/(((cos(3*a)^2 + sin(3*a)^2)*c^(2/3*m)*m + (cos(3*a)^2 +
 sin(3*a)^2)*c^(2/3*m))*c^(2/3)*x^(1/3))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 2.86 (sec) , antiderivative size = 1297, normalized size of antiderivative = 5.95

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx=\text{Too large to display}$$

```
[In] integrate(x^m*sin(a+1/6*log(c*x^2)*(-(1+m)^2)^(1/2))^3,x, algorithm="giac")
```

```
[Out] 1/8*(I*(m + 1)^2*m*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - 3*I
*a) - 9*I*m^3*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) - 3*I*a) -
 I*(m + 1)^2*x*x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x)
- 3*I*a) + 9*I*m^2*x*x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*l
og(x) - 3*I*a) - 27*I*(m + 1)^2*m*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(
m + 1)*log(x) - I*a) + 27*I*m^3*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(m
+ 1)*log(x) - I*a) + 9*I*(m + 1)^2*x*x^m*abs(m + 1)*e^(1/6*abs(m + 1)*log(c
) + 1/3*abs(m + 1)*log(x) - I*a) - 9*I*m^2*x*x^m*abs(m + 1)*e^(1/6*abs(m +
1)*log(c) + 1/3*abs(m + 1)*log(x) - I*a) + 27*I*(m + 1)^2*m*x*x^m*e^(-1/6*a
bs(m + 1)*log(c) - 1/3*abs(m + 1)*log(x) + I*a) - 27*I*m^3*x*x^m*e^(-1/6*ab
s(m + 1)*log(c) - 1/3*abs(m + 1)*log(x) + I*a) + 9*I*(m + 1)^2*x*x^m*abs(m
+ 1)*e^(-1/6*abs(m + 1)*log(c) - 1/3*abs(m + 1)*log(x) + I*a) - 9*I*m^2*x*x
^m*abs(m + 1)*e^(-1/6*abs(m + 1)*log(c) - 1/3*abs(m + 1)*log(x) + I*a) - I*
(m + 1)^2*m*x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 3*I*a) +
9*I*m^3*x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 3*I*a) - I*(m
 + 1)^2*x*x^m*abs(m + 1)*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 3*
I*a) + 9*I*m^2*x*x^m*abs(m + 1)*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(
x) + 3*I*a) + I*(m + 1)^2*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x
) - 3*I*a) - 27*I*m^2*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(x) -
3*I*a) + 18*I*m*x*x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(c) + abs(m + 1)*log(
x) - 3*I*a) - 27*I*(m + 1)^2*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(m + 1
)*log(x) - I*a) + 81*I*m^2*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(m + 1)*
log(x) - I*a) - 18*I*m*x*x^m*abs(m + 1)*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(
m + 1)*log(x) - I*a) + 27*I*(m + 1)^2*x*x^m*e^(-1/6*abs(m + 1)*log(c) - 1/3
*abs(m + 1)*log(x) + I*a) - 81*I*m^2*x*x^m*e^(-1/6*abs(m + 1)*log(c) - 1/3*
abs(m + 1)*log(x) + I*a) - 18*I*m*x*x^m*abs(m + 1)*e^(-1/6*abs(m + 1)*log(c
) - 1/3*abs(m + 1)*log(x) + I*a) - I*(m + 1)^2*x*x^m*e^(-1/2*abs(m + 1)*log
(c) - abs(m + 1)*log(x) + 3*I*a) + 27*I*m^2*x*x^m*e^(-1/2*abs(m + 1)*log(c)
 - abs(m + 1)*log(x) + 3*I*a) + 18*I*m*x*x^m*abs(m + 1)*e^(-1/2*abs(m + 1)*
log(c) - abs(m + 1)*log(x) + 3*I*a) - 27*I*m*x*x^m*e^(1/2*abs(m + 1)*log(c)
 + abs(m + 1)*log(x) - 3*I*a) + 9*I*x*x^m*abs(m + 1)*e^(1/2*abs(m + 1)*log(
c) + abs(m + 1)*log(x) - 3*I*a) + 81*I*m*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1
/3*abs(m + 1)*log(x) - I*a) - 9*I*x*x^m*abs(m + 1)*e^(1/6*abs(m + 1)*log(c)
 + 1/3*abs(m + 1)*log(x) - I*a) - 81*I*m*x*x^m*e^(-1/6*abs(m + 1)*log(c) -
1/3*abs(m + 1)*log(x) + I*a) - 9*I*x*x^m*abs(m + 1)*e^(-1/6*abs(m + 1)*log(
c) - 1/3*abs(m + 1)*log(x) + I*a) + 27*I*m*x*x^m*e^(-1/2*abs(m + 1)*log(c)
- abs(m + 1)*log(x) + 3*I*a) + 9*I*x*x^m*abs(m + 1)*e^(-1/2*abs(m + 1)*log(
c) - abs(m + 1)*log(x) + 3*I*a) - 9*I*x*x^m*e^(1/2*abs(m + 1)*log(c) + abs(
m + 1)*log(x) - 3*I*a) + 27*I*x*x^m*e^(1/6*abs(m + 1)*log(c) + 1/3*abs(m +
1)*log(x) - I*a) - 27*I*x*x^m*e^(-1/6*abs(m + 1)*log(c) - 1/3*abs(m + 1)*lo
g(x) + I*a) + 9*I*x*x^m*e^(-1/2*abs(m + 1)*log(c) - abs(m + 1)*log(x) + 3*I
*a))/((m + 1)^4 - 10*(m + 1)^2*m^2 + 9*m^4 - 20*(m + 1)^2*m + 36*m^3 - 10*(
m + 1)^2 + 54*m^2 + 36*m + 9)
```

Mupad [B] (verification not implemented)

Time = 29.61 (sec) , antiderivative size = 291, normalized size of antiderivative = 1.33

$$\int x^m \sin^3\left(a+\frac{1}{6}\sqrt{-(1+m)^2}\log\left(cx^2\right)\right)\,dx$$
$$= -\frac{\frac{1}{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}\,x\,x^m\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{\left(x^2\right)^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}}\,1\mathrm{i}}{8\,m+8-\sqrt{-\left(m+1\right)^2}\,8\mathrm{i}} + \frac{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}\,x\,x^m\,\mathrm{e}^{a\,3\mathrm{i}}\,\left(x^2\right)^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{2}}\,1\mathrm{i}}{8\,m+8+\sqrt{-\left(m+1\right)^2}\,8\mathrm{i}}$$
$$- \frac{\frac{1}{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{6}}}\,x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{\left(x^2\right)^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{6}}}\,\left(27\,m+27+\sqrt{-\left(m+1\right)^2}\,9\mathrm{i}\right)\,1\mathrm{i}}{64\,\left(m\,1\mathrm{i}+1\mathrm{i}\right)^2}$$
$$+ \frac{c^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{6}}\,x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,\left(x^2\right)^{\frac{\sqrt{-m^2-2\,m-1}\,1\mathrm{i}}{6}}\,\left(27\,m+27-\sqrt{-\left(m+1\right)^2}\,9\mathrm{i}\right)\,1\mathrm{i}}{64\,\left(m\,1\mathrm{i}+1\mathrm{i}\right)^2}$$

```
[In] int(x^m*sin(a + (log(c*x^2)*(-(m + 1)^2)^(1/2))/6)^3,x)
```

```
[Out] (c^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*x*x^m*exp(a*3i)*(x^2)^(((- 2*m - m^2 -
1)^(1/2)*1i)/2)*1i)/(8*m + (-(m + 1)^2)^(1/2)*8i + 8) - (1/c^(((- 2*m - m^2
 - 1)^(1/2)*1i)/2)*x*x^m*exp(-a*3i)/(x^2)^(((- 2*m - m^2 - 1)^(1/2)*1i)/2)*
1i)/(8*m - (-(m + 1)^2)^(1/2)*8i + 8) - (1/c^(((- 2*m - m^2 - 1)^(1/2)*1i)/
6)*x*x^m*exp(-a*1i)/(x^2)^(((- 2*m - m^2 - 1)^(1/2)*1i)/6)*(27*m + (-(m + 1
)^2)^(1/2)*9i + 27)*1i)/(64*(m*1i + 1i)^2) + (c^(((- 2*m - m^2 - 1)^(1/2)*1
i)/6)*x*x^m*exp(a*1i)*(x^2)^(((- 2*m - m^2 - 1)^(1/2)*1i)/6)*(27*m - (-(m +
 1)^2)^(1/2)*9i + 27)*1i)/(64*(m*1i + 1i)^2)
```

3.52 $\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx$

Optimal result 429
Rubi [A] (verified) 429
Mathematica [A] (verified) 430
Maple [B] (verified) 430
Fricas [B] (verification not implemented) 431
Sympy [F] 432
Maxima [A] (verification not implemented) 432
Giac [F] 432
Mupad [F(-1)] 433

Optimal result

Integrand size = 17, antiderivative size = 98

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=-\frac{ice^{-3ia}x^3}{16\sqrt{cx^2}}-\frac{9ie^{ia}x}{16\sqrt[6]{cx^2}}+\frac{9}{32}ie^{-ia}x\sqrt[6]{cx^2}+\frac{ie^{3ia}x\log(x)}{8\sqrt{cx^2}}$$

```
[Out] -9/16*I*exp(I*a)*x/(c*x^2)^(1/6)+9/32*I*x*(c*x^2)^(1/6)/exp(I*a)-1/16*I*c*x
^3/exp(3*I*a)/(c*x^2)^(1/2)+1/8*I*exp(3*I*a)*x*ln(x)/(c*x^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4571, 4577}

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=\frac{9}{32}ie^{-ia}x\sqrt[6]{cx^2}-\frac{9ie^{ia}x}{16\sqrt[6]{cx^2}}+\frac{ie^{3ia}x\log(x)}{8\sqrt{cx^2}}-\frac{ie^{-3ia}cx^3}{16\sqrt{cx^2}}$$

```
[In] Int[Sin[a + (I/6)*Log[c*x^2]]^3,x]
```

```
[Out] ((-1/16*I)*c*x^3)/(E^((3*I)*a)*Sqrt[c*x^2]) - (((9*I)/16)*E^(I*a)*x)/(c*x^2
)^(1/6) + (((9*I)/32)*x*(c*x^2)^(1/6))/E^(I*a) + ((I/8)*E^((3*I)*a)*x*Log[x
])/Sqrt[c*x^2]
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4577

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[(m + 1)^p/(2^p*b^p*d^p*p^p), Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^
2*(p/(m + 1)))/x^((m + 1)/p) - x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x]
, x], x] /; FreeQ[{a, b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m
 + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{x\text{Subst}\left(\int \frac{\sin^3\left(a+\frac{1}{6}i\log(x)\right)}{\sqrt{x}}\,dx, x, cx^2\right)}{2\sqrt{cx^2}} \\
&= \frac{(ix)\text{Subst}\left(\int \left(-e^{-3ia}+\frac{e^{3ia}}{x}-\frac{3e^{ia}}{x^{2/3}}+\frac{3e^{-ia}}{\sqrt[3]{x}}\right)dx, x, cx^2\right)}{16\sqrt{cx^2}} \\
&= -\frac{ice^{-3ia}x^3}{16\sqrt{cx^2}}-\frac{9ie^{ia}x}{16\sqrt[6]{cx^2}}+\frac{9}{32}ie^{-ia}x\sqrt[6]{cx^2}+\frac{ie^{3ia}x\log(x)}{8\sqrt{cx^2}}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 103, normalized size of antiderivative = 1.05

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)dx = \frac{x\left(9i\sqrt[3]{cx^2}\left(-2+\sqrt[3]{cx^2}\right)\cos(a)-2i\cos(3a)\left(cx^2-2\log(x)\right)+18\sqrt[3]{cx^2}\sin(a)+9\left(cx^2\right)^{2/3}\sin(a)-2cx^2\sin}{32\sqrt{cx^2}}$$

```
[In] Integrate[Sin[a + (I/6)*Log[c*x^2]]^3,x]
```

```
[Out] (x*((9*I)*(c*x^2)^(1/3)*(-2 + (c*x^2)^(1/3))*Cos[a] - (2*I)*Cos[3*a]*(c*x^2
 - 2*Log[x]) + 18*(c*x^2)^(1/3)*Sin[a] + 9*(c*x^2)^(2/3)*Sin[a] - 2*c*x^2*S
in[3*a] - 4*Log[x]*Sin[3*a]))/(32*Sqrt[c*x^2])
```

Maple [B] (verified)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 283 vs. 2(74) = 148.

Time = 4.48 (sec) , antiderivative size = 284, normalized size of antiderivative = 2.90

method	result
norman	$-\frac{23ix}{40}+\frac{27x\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{12}\right)}{10}+\frac{27x\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{12}\right)^5}{10}+\frac{33ix\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{12}\right)^2}{8}+\frac{23ix\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right)}{12}\right)^6}{40}-\frac{33ix\tan\left(\frac{a}{2}+\frac{i\ln\left(cx^2\right.}{12}\right.}{8}$

[In] int(sin(a+1/6*I*ln(c*x^2))^3,x,method=_RETURNVERBOSE)

[Out] (-23/40*I*x+27/10*x*tan(1/2*a+1/12*I*ln(c*x^2))+27/10*x*tan(1/2*a+1/12*I*ln(c*x^2))^5+33/8*I*x*tan(1/2*a+1/12*I*ln(c*x^2))^2+23/40*I*x*tan(1/2*a+1/12*I*ln(c*x^2))^6-33/8*I*x*tan(1/2*a+1/12*I*ln(c*x^2))^4-3/8*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))+5/4*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))^3-3/8*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))^5+1/16*I*x*ln(c*x^2)-15/16*I*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))^2+15/16*I*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))^4-1/16*I*x*ln(c*x^2)*tan(1/2*a+1/12*I*ln(c*x^2))^6)/(1+tan(1/2*a+1/12*I*ln(c*x^2))^2)^3

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 204 vs. 2(62) = 124.

Time = 1.75 (sec) , antiderivative size = 204, normalized size of antiderivative = 2.08

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx = \frac{\left(2\,cx\sqrt{-\frac{e^{(6i\,a)}}{c}}e^{(3i\,a)}\log\left(\frac{\left(\sqrt{cx^2}\left(x^2+1\right)e^{(3i\,a)}-\left(i\,cx^3-i\,cx\right)\sqrt{-\frac{e^{(6i\,a)}}{c}}\right)e^{(-3i\,a)}}{8\,x^2}\right)-2\,cx\sqrt{-\frac{e^{(6i\,a)}}{c}}e^{(3i\,a)}\log\left(\frac{\left(\sqrt{cx^2}\left(x^2+\right.\right.}{}\right.\right.}{32\,c}$$

[In] integrate(sin(a+1/6*I*log(c*x^2))^3,x, algorithm="fricas")

[Out] 1/32*(2*c*x*sqrt(-e^(6*I*a)/c)*e^(3*I*a)*log(1/8*(sqrt(c*x^2)*(x^2 + 1)*e^(3*I*a) - (I*c*x^3 - I*c*x)*sqrt(-e^(6*I*a)/c))*e^(-3*I*a)/x^2) - 2*c*x*sqrt(-e^(6*I*a)/c)*e^(3*I*a)*log(1/8*(sqrt(c*x^2)*(x^2 + 1)*e^(3*I*a) - (-I*c*x^3 + I*c*x)*sqrt(-e^(6*I*a)/c))*e^(-3*I*a)/x^2) + 9*I*(c*x^2)^(1/6)*c*x^2*e^(2*I*a) - 18*I*(c*x^2)^(5/6)*e^(4*I*a) - 2*sqrt(c*x^2)*(I*c*x^2 - I*c))*e^(-3*I*a)/(c*x)

Sympy [F]

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=\int \sin^3\left(a+\frac{i\log\left(cx^2\right)}{6}\right)dx$$

```
[In] integrate(sin(a+1/6*I*ln(c*x**2))**3,x)
[Out] Integral(sin(a + I*log(c*x**2)/6)**3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 75, normalized size of antiderivative = 0.77

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=$$
$$-\frac{9\,c^{\frac{4}{3}}x^{\frac{4}{3}}(-i\,\cos\left(a\right)-\sin\left(a\right))+18\,cx^{\frac{2}{3}}(i\,\cos\left(a\right)-\sin\left(a\right))+2\left(cx^2(i\,\cos\left(3\,a\right)+\sin\left(3\,a\right))+2\left(-i\,\cos\left(3\,a\right.\right.\right.}{32\,c^{\frac{7}{6}}}$$

```
[In] integrate(sin(a+1/6*I*log(c*x^2))^3,x, algorithm="maxima")
[Out] -1/32*(9*c^(4/3)*x^(4/3)*(-I*cos(a) - sin(a)) + 18*c*x^(2/3)*(I*cos(a) - si
n(a)) + 2*(c*x^2*(I*cos(3*a) + sin(3*a)) + 2*(-I*cos(3*a) + sin(3*a))*log(x
))*c^(2/3))/c^(7/6)
```

Giac [F]

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=\int \sin\left(a+\frac{1}{6}i\,\log\left(cx^2\right)\right)^3\,dx$$

```
[In] integrate(sin(a+1/6*I*log(c*x^2))^3,x, algorithm="giac")
[Out] integrate(sin(a + 1/6*I*log(c*x^2))^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sin^3\left(a+\frac{1}{6}i\log\left(cx^2\right)\right)\,dx=\int \sin\left(a+\frac{\ln\left(c\,x^2\right)\,1\mathrm{i}}{6}\right)^3\,dx$$

```
[In] int(sin(a + (log(c*x^2)*1i)/6)^3,x)
[Out] int(sin(a + (log(c*x^2)*1i)/6)^3, x)
```

3.53 $\int x\sqrt{\sin(a+b\log(cx^n))}\,dx$

Optimal result 434
Rubi [A] (verified) 434
Mathematica [A] (verified) 435
Maple [F] 436
Fricas [F(-2)] 436
Sympy [F] 436
Maxima [F] 436
Giac [F] 437
Mupad [F(-1)] 437

Optimal result

Integrand size = 17, antiderivative size = 111

$$\int x\sqrt{\sin(a+b\log(cx^n))}\,dx = \frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{4i}{bn}\right),\frac{1}{4}\left(3-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(4-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] 2*x^2*hypergeom([-1/2, -1/4-I/b/n],[3/4-I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))*
sin(a+b*ln(c*x^n))^(1/2)/(4-I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4581, 4579, 371}

$$\int x\sqrt{\sin(a+b\log(cx^n))}\,dx = \frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{4i}{bn}\right),\frac{1}{4}\left(3-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(4-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[x*Sqrt[Sin[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^2*Hypergeometric2F1[-1/2, (-1 - (4*I)/(b*n))/4, (3 - (4*I)/(b*n))/4, E
^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Sin[a + b*Log[c*x^n]]])/((4 - I*b*n)*Sqr
t[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sqrt{\sin(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$=\frac{\left(x^2(cx^n)^{\frac{ib}{2}-\frac{2}{n}}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{2}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

$$=\frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{4i}{bn}\right),\frac{1}{4}\left(3-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{(4-ibn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

Mathematica [A] (verified)

Time = 11.00 (sec) , antiderivative size = 145, normalized size of antiderivative = 1.31

$$\int x\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\,dx$$
$$=\frac{i\sqrt{2}x^2\sqrt{-ie^{-ia}\left(cx^n\right)^{-ib}\left(-1+e^{2ia}\left(cx^n\right)^{2ib}\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{1}{4}-\frac{i}{bn},\frac{3}{4}-\frac{i}{bn},e^{2ia}(cx^n)^{2ib}\right)}{(4i+bn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

```
[In] Integrate[x*Sqrt[Sin[a + b*Log[c*x^n]]],x]
```

```
[Out] (I*Sqrt[2]*x^2*Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c
*x^n)^(I*b))]*Hypergeometric2F1[-1/2, -1/4 - I/(b*n), 3/4 - I/(b*n), E^((2*
I)*a)*(c*x^n)^((2*I)*b)])/((4*I + b*n)*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*
b)])
```

Maple [F]

$$\int x\sqrt{\sin\left(a+b\ln\left(c\,x^{n}\right)\right)}dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^(1/2),x)
[Out] int(x*sin(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(x*sqrt(sin(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int x\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x*sqrt(sin(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int x\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x*sqrt(sin(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int x\,\sqrt{\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\,dx$$

```
[In] int(x*sin(a + b*log(c*x^n))^(1/2),x)
[Out] int(x*sin(a + b*log(c*x^n))^(1/2), x)
```

3.54 $\int \sqrt{\sin(a+b\log(cx^n))}\,dx$

Optimal result . . . 438
Rubi [A] (verified) . . . 438
Mathematica [A] (verified) . . . 439
Maple [F] . . . 440
Fricas [F(-2)] . . . 440
Sympy [F] . . . 440
Maxima [F] . . . 440
Giac [F] . . . 441
Mupad [F(-1)] . . . 441

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \sqrt{\sin(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(2-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] 2*x*hypergeom([-1/2, 1/4*(-2*I-b*n)/b/n],[3/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)
^(2*I*b))*sin(a+b*ln(c*x^n))^(1/2)/(2-I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))
^(1/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4571, 4579, 371}

$$\int \sqrt{\sin(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{bn+2i}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(2-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[Sqrt[Sin[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Hypergeometric2F1[-1/2, -1/4*(2*I + b*n)/(b*n), (3 - (2*I)/(b*n))/4, E
^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Sin[a + b*Log[c*x^n]]])/((2 - I*b*n)*Sqr
t[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sqrt{\sin(a+b\log(x))}\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(x(cx^n)^{\frac{ib}{2}-\frac{1}{n}}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\\ &= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{(2-ibn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\end{aligned}$$

Mathematica [A] (verified)

Time = 9.87 (sec) , antiderivative size = 148, normalized size of antiderivative = 1.35

$$\int\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\,dx = \frac{i\sqrt{2}x\sqrt{-ie^{-ia}\left(cx^n\right)^{-ib}\left(-1+e^{2ia}\left(cx^n\right)^{2ib}\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{3}{4}-\frac{i}{2bn},e^{2ia}(cx^n)^{2ib}\right)}{(2i+bn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

```
[In] Integrate[Sqrt[Sin[a + b*Log[c*x^n]]],x]
```

```
[Out] (I*Sqrt[2]*x*Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x
^n)^(I*b))]*Hypergeometric2F1[-1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*
n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2*I + b*n)*Sqrt[1 - E^((2*I)*a)*(c*x^
n)^((2*I)*b)])
```

Maple [F]

$$\int \sqrt{\sin \left(a+b\ln \left(c\,x^{n}\right)\right)}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^(1/2),x)
[Out] int(sin(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}\, dx = \text{Exception raised: TypeError}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}\, dx = \int \sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}\, dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(sqrt(sin(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}\, dx = \int \sqrt{\sin \left(b\log \left(cx^{n}\right)+a\right)}\, dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\,dx=\int \sqrt{\sin\left(b\log\left(cx^n\right)+a\right)}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\,dx=\int \sqrt{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(1/2),x)
[Out] int(sin(a + b*log(c*x^n))^(1/2), x)
```

3.55 $\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x}\,dx$

Optimal result . . . 442
Rubi [A] (verified) . . . 442
Mathematica [A] (verified) . . . 443
Maple [A] (verified) . . . 443
Fricas [C] (verification not implemented) . . . 443
Sympy [F] . . . 444
Maxima [F] . . . 444
Giac [F] . . . 444
Mupad [B] (verification not implemented) . . . 444

Optimal result

Integrand size = 19, antiderivative size = 29

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x}\,dx = \frac{2E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)}{bn}$$

```
[Out] -2*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*
x^n))*EllipticE(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.053, Rules used = {2719}

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x}\,dx = \frac{2E\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right)\middle|2\right)}{bn}$$

```
[In] Int[Sqrt[Sin[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] (2*EllipticE[(a - Pi/2 + b*Log[c*x^n])/2, 2])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \sqrt{\sin(a+bx)}\,dx, x, \log(cx^n)\right)}{n} \\ &= \frac{2E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)}{bn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.10

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x}\,dx = -\frac{2E\left(\frac{1}{2}\left(-a+\frac{\pi}{2}-b\log(cx^n)\right)\middle|2\right)}{bn}$$

```
[In] Integrate[Sqrt[Sin[a + b*Log[c*x^n]]]/x,x]
[Out] (-2*EllipticE[(-a + Pi/2 - b*Log[c*x^n])/2, 2])/(b*n)
```

Maple [A] (verified)

Time = 0.99 (sec) , antiderivative size = 129, normalized size of antiderivative = 4.45

method	result
derivativedivides	$-\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\left(2\,\mathrm{EllipticE}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)-\mathrm{E}\right.}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$
default	$-\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\left(2\,\mathrm{EllipticE}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)-\mathrm{E}\right.}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$

```
[In] int(sin(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)
[Out] -1/n*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b
*ln(c*x^n)))^(1/2)*(2*EllipticE((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-E
llipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2)))/cos(a+b*ln(c*x^n))/sin(
a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 90, normalized size of antiderivative = 3.10

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x}\,dx = \frac{i\sqrt{2}\sqrt{-i}\text{weierstrassZeta}(4,0,\text{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)+i\,\sin(bn\log(x)+$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")
[Out] (I*sqrt(2)*sqrt(-I)*weierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n
*log(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) - I*sqrt(2)*sq
rt(I)*weierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) + b*lo
g(c) + a) - I*sin(b*n*log(x) + b*log(c) + a))))/(b*n)
```

Sympy [F]

$$\int \frac{\sqrt{\sin \left(a+b \log \left(c x^n\right)\right)}}{x} \, dx=\int \frac{\sqrt{\sin \left(a+b \log \left(c x^n\right)\right)}}{x} \, dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(1/2)/x,x)
[Out] Integral(sqrt(sin(a + b*log(c*x**n)))/x, x)
```

Maxima [F]

$$\int \frac{\sqrt{\sin \left(a+b \log \left(c x^n\right)\right)}}{x} \, dx=\int \frac{\sqrt{\sin \left(b \log \left(c x^n\right)+a\right)}}{x} \, dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x, x)
```

Giac [F]

$$\int \frac{\sqrt{\sin \left(a+b \log \left(c x^n\right)\right)}}{x} \, dx=\int \frac{\sqrt{\sin \left(b \log \left(c x^n\right)+a\right)}}{x} \, dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.55 (sec) , antiderivative size = 26, normalized size of antiderivative = 0.90

$$\int \frac{\sqrt{\sin \left(a+b \log \left(c x^n\right)\right)}}{x} \, dx=\frac{2\,\mathrm{E}\left(\frac{a}{2}-\frac{\pi }{4}+\frac{b\,\ln\left(c\,x^n\right)}{2}\middle|2\right)}{b\,n}$$

```
[In] int(sin(a + b*log(c*x^n))^(1/2)/x,x)
[Out] (2*ellipticE(a/2 - pi/4 + (b*log(c*x^n))/2, 2))/(b*n)
```

3.56 $\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^2}\,dx$

Optimal result 445
Rubi [A] (verified) 445
Mathematica [A] (verified) 446
Maple [F] 447
Fricas [F(-2)] 447
Sympy [F] 447
Maxima [F] 448
Giac [F] 448
Mupad [F(-1)] 448

Optimal result

Integrand size = 19, antiderivative size = 111

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^2}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1+\frac{2i}{bn}\right),\frac{1}{4}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(2+ibn)x\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] -2*hypergeom([-1/2, -1/4+1/2*I/b/n],[3/4+1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I
*b))*sin(a+b*ln(c*x^n))^(1/2)/(2+I*b*n)/x/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1
/2)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4581, 4579, 371}

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^2}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(\frac{2i}{bn}-1\right),\frac{1}{4}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{x(2+ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[Sqrt[Sin[a + b*Log[c*x^n]]]/x^2,x]
```

```
[Out] (-2*Hypergeometric2F1[-1/2, (-1 + (2*I)/(b*n))/4, (3 + (2*I)/(b*n))/4, E^((
2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Sin[a + b*Log[c*x^n]]])/((2 + I*b*n)*x*Sqrt
[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sqrt{\sin(a+b\log(x))}\,dx,x,cx^n\right)}{nx}\\ &= \frac{\left((cx^n)^{\frac{ib}{2}+\frac{1}{n}}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}-\frac{1}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{nx\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\\ &= -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1+\frac{2i}{bn}\right),\frac{1}{4}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{(2+ibn)x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\end{aligned}$$

Mathematica [A] (verified)

Time = 11.20 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.34

$$\int\frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^2}\,dx = \frac{i\sqrt{2}\sqrt{-ie^{-ia}\left(cx^n\right)^{-ib}\left(-1+e^{2ia}\left(cx^n\right)^{2ib}\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{1}{4}+\frac{i}{2bn},\frac{3}{4}+\frac{i}{2bn},e^{2ia}(cx^n)^{2ib}\right)}{(-2i+bn)x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

```
[In] Integrate[Sqrt[Sin[a + b*Log[c*x^n]]]/x^2,x]
```

```
[Out] (I*Sqrt[2]*Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n
)^(I*b))]*Hypergeometric2F1[-1/2, -1/4 + (I/2)/(b*n), 3/4 + (I/2)/(b*n), E^
((2*I)*a)*(c*x^n)^((2*I)*b)])/((-2*I + b*n)*x*Sqrt[1 - E^((2*I)*a)*(c*x^n)^
((2*I)*b)])
```

Maple [F]

$$\int \frac{\sqrt{\sin \left(a +b \ln \left(c \,x^{n}\right)\right)}}{x^{2}}d x$$

```
[In] int(sin(a+b*ln(c*x^n))^(1/2)/x^2,x)
```

```
[Out] int(sin(a+b*ln(c*x^n))^(1/2)/x^2,x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{\sqrt{\sin \left(a + b \log \left(cx^{n}\right)\right)}}{x^{2}}\, dx = \text{Exception raised: TypeError}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^2,x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{\sqrt{\sin \left(a + b \log \left(cx^{n}\right)\right)}}{x^{2}}\, dx = \int \frac{\sqrt{\sin \left(a + b \log \left(cx^{n}\right)\right)}}{x^{2}}\, dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(1/2)/x**2,x)
```

```
[Out] Integral(sqrt(sin(a + b*log(c*x**n)))/x**2, x)
```

Maxima [F]

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^2}\,dx=\int \frac{\sqrt{\sin\left(b\log\left(cx^n\right)+a\right)}}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^2,x, algorithm="maxima")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x^2, x)
```

Giac [F]

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^2}\,dx=\int \frac{\sqrt{\sin\left(b\log\left(cx^n\right)+a\right)}}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^2,x, algorithm="giac")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^2}\,dx=\int \frac{\sqrt{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(1/2)/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^(1/2)/x^2, x)
```

3.57 $\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^3}\,dx$

Optimal result . . . 449
Rubi [A] (verified) . . . 449
Mathematica [A] (verified) . . . 450
Maple [F] . . . 451
Fricas [F(-2)] . . . 451
Sympy [F] . . . 451
Maxima [F] . . . 452
Giac [F] . . . 452
Mupad [F(-1)] . . . 452

Optimal result

Integrand size = 19, antiderivative size = 111

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^3}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1+\frac{4i}{bn}\right),\frac{1}{4}\left(3+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{(4+ibn)x^2\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] -2*hypergeom([-1/2, -1/4+I/b/n],[3/4+I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))*sin
(a+b*ln(c*x^n))^(1/2)/(4+I*b*n)/x^2/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4581, 4579, 371}

$$\int \frac{\sqrt{\sin(a+b\log(cx^n))}}{x^3}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(\frac{4i}{bn}-1\right),\frac{1}{4}\left(3+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin(a+b\log(cx^n))}}{x^2(4+ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[Sqrt[Sin[a + b*Log[c*x^n]]]/x^3,x]
```

```
[Out] (-2*Hypergeometric2F1[-1/2, (-1 + (4*I)/(b*n))/4, (3 + (4*I)/(b*n))/4, E^((
2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Sin[a + b*Log[c*x^n]]])/((4 + I*b*n)*x^2*Sq
rt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sqrt{\sin(a+b\log(x))}\,dx, x, cx^n\right)}{nx^2}\\ &= \frac{\left((cx^n)^{\frac{ib}{2}+\frac{2}{n}}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}-\frac{2}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{nx^2\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\\ &= -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1+\frac{4i}{bn}\right),\frac{1}{4}\left(3+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{(4+ibn)x^2\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}\end{aligned}$$

Mathematica [A] (verified)

Time = 11.15 (sec) , antiderivative size = 145, normalized size of antiderivative = 1.31

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^3}\,dx = \frac{i\sqrt{2}\sqrt{-ie^{-ia}\left(cx^n\right)^{-ib}\left(-1+e^{2ia}\left(cx^n\right)^{2ib}\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{1}{4}+\frac{i}{bn},\frac{3}{4}+\frac{i}{bn},e^{2ia}(cx^n)^{2ib}\right)}{(-4i+bn)x^2\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}}$$

[In] Integrate[Sqrt[Sin[a + b*Log[c*x^n]]]/x^3,x]

[Out] (I*Sqrt[2]*Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b))]*Hypergeometric2F1[-1/2, -1/4 + I/(b*n), 3/4 + I/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((-4*I + b*n)*x^2*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])

Maple [F]

$$\int \frac{\sqrt{\sin \left(a+b\ln \left(c\,x^{n}\right)\right)}}{x^{3}}dx$$

[In] int(sin(a+b*ln(c*x^n))^(1/2)/x^3,x)

[Out] int(sin(a+b*ln(c*x^n))^(1/2)/x^3,x)

Fricas [F(-2)]

Exception generated.

$$\int \frac{\sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}}{x^{3}}\,dx=\text{Exception raised: TypeError}$$

[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^3,x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integrate: implementation incomplete (has polynomial part)

Sympy [F]

$$\int \frac{\sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}}{x^{3}}\,dx=\int \frac{\sqrt{\sin \left(a+b\log \left(cx^{n}\right)\right)}}{x^{3}}\,dx$$

[In] integrate(sin(a+b*ln(c*x**n))**(1/2)/x**3,x)

[Out] Integral(sqrt(sin(a + b*log(c*x**n)))/x**3, x)

Maxima [F]

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^3}\,dx = \int \frac{\sqrt{\sin\left(b\log\left(cx^n\right)+a\right)}}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^3,x, algorithm="maxima")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x^3, x)
```

Giac [F]

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^3}\,dx = \int \frac{\sqrt{\sin\left(b\log\left(cx^n\right)+a\right)}}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(1/2)/x^3,x, algorithm="giac")
[Out] integrate(sqrt(sin(b*log(c*x^n) + a))/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{x^3}\,dx = \int \frac{\sqrt{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(1/2)/x^3,x)
[Out] int(sin(a + b*log(c*x^n))^(1/2)/x^3, x)
```

3.58 $\int x\sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result . . . 453
Rubi [A] (verified) . . . 453
Mathematica [A] (verified) . . . 454
Maple [F] . . . 455
Fricas [F(-2)] . . . 455
Sympy [F(-1)] . . . 455
Maxima [F] . . . 456
Giac [F] . . . 456
Mupad [F(-1)] . . . 456

Optimal result

Integrand size = 17, antiderivative size = 111

$$\int x\sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{4i}{bn}\right),\frac{1}{4}\left(1-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(4-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] 2*x^2*hypergeom([-3/2, -3/4-I/b/n],[1/4-I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))*
sin(a+b*ln(c*x^n))^(3/2)/(4-3*I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4581, 4579, 371}

$$\int x\sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{4i}{bn}\right),\frac{1}{4}\left(1-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(4-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^2*Hypergeometric2F1[-3/2, (-3 - (4*I)/(b*n))/4, (1 - (4*I)/(b*n))/4, E
^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^(3/2))/((4 - (3*I)*b*n)
*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sin^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^2(cx^n)^{\frac{3ib}{2}-\frac{2}{n}}\sin^{\frac{3}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{2}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{n\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}\\
&= \frac{2x^2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{4i}{bn}\right),\frac{1}{4}\left(1-\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(4-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}\end{aligned}$$

Mathematica [A] (verified)

Time = 1.00 (sec) , antiderivative size = 218, normalized size of antiderivative = 1.96

$$\begin{aligned}&\int x\sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx\\
&= -\frac{6ib^2\sqrt{2-2e^{2i(a+b\log(cx^n))}}n^2x^2\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{bn},\frac{5}{4}-\frac{i}{bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-i(a+b\log(cx^n))}\left(-1+e^{2i(a+b\log(cx^n))}\right)}(-4i+bn)(-4i+3bn)(4i+3bn)}\\
&\quad+\frac{2x^2\sqrt{\sin(a+b\log(cx^n))}(-3bn\cos(a+b\log(cx^n))+4\sin(a+b\log(cx^n)))}{16+9b^2n^2}\end{aligned}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] ((-6*I)*b^2*Sqrt[2 - 2*E^((2*I)*(a + b*Log[c*x^n]))]*n^2*x^2*Hypergeometric
2F1[1/2, 1/4 - I/(b*n), 5/4 - I/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(Sqrt
[((-I)*(-1 + E^((2*I)*(a + b*Log[c*x^n]))))/E^(I*(a + b*Log[c*x^n]))]*(-4*I
 + b*n)*(-4*I + 3*b*n)*(4*I + 3*b*n)) + (2*x^2*Sqrt[Sin[a + b*Log[c*x^n]]]*
(-3*b*n*Cos[a + b*Log[c*x^n]] + 4*Sin[a + b*Log[c*x^n]]))/(16 + 9*b^2*n^2)
```

Maple [F]

$$\int x\sin \left(a +b\ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(x*sin(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F(-1)]

Timed out.

$$\int x\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Timed out}$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int x\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x*sin(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int x\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(x*sin(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)^{3/2}\,dx$$

```
[In] int(x*sin(a + b*log(c*x^n))^(3/2),x)
[Out] int(x*sin(a + b*log(c*x^n))^(3/2), x)
```

3.59 $\int \sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result 457
Rubi [A] (verified) 457
Mathematica [A] (verified) 458
Maple [F] 459
Fricas [F(-2)] 459
Sympy [F] 459
Maxima [F] 460
Giac [F] 460
Mupad [F(-1)] 460

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(2-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] 2*x*hypergeom([-3/2, -3/4-1/2*I/b/n],[1/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*
I*b))*sin(a+b*ln(c*x^n))^(3/2)/(2-3*I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(
3/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4571, 4579, 371}

$$\int \sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(2-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x*Hypergeometric2F1[-3/2, (-3 - (2*I)/(b*n))/4, (1 - (2*I)/(b*n))/4, E^(
(2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^(3/2))/((2 - (3*I)*b*n)*(
1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sin^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{\frac{3ib}{2}-\frac{1}{n}}\sin^{\frac{3}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{n\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}\\
&= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(2-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.82 (sec) , antiderivative size = 218, normalized size of antiderivative = 2.00

$$\begin{aligned}
&\int \sin^{\frac{3}{2}}(a+b\log(cx^n))\,dx\\
&= -\frac{6ib^2\sqrt{2-2e^{2i(a+b\log(cx^n))}}n^2x\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-i(a+b\log(cx^n))}\left(-1+e^{2i(a+b\log(cx^n))}\right)}(-2i+bn)(-2i+3bn)(2i+3bn)}\\
&\quad+\frac{2x\sqrt{\sin(a+b\log(cx^n))}(-3bn\cos(a+b\log(cx^n))+2\sin(a+b\log(cx^n)))}{4+9b^2n^2}
\end{aligned}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] ((-6*I)*b^2*Sqrt[2 - 2*E^((2*I)*(a + b*Log[c*x^n]))]*n^2*x*Hypergeometric2F
1[1/2, 1/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])
/(Sqrt[((-I)*(-1 + E^((2*I)*(a + b*Log[c*x^n]))))/E^(I*(a + b*Log[c*x^n]))]
*(-2*I + b*n)*(-2*I + 3*b*n)*(2*I + 3*b*n)) + (2*x*Sqrt[Sin[a + b*Log[c*x^n
]]]*(-3*b*n*Cos[a + b*Log[c*x^n]] + 2*Sin[a + b*Log[c*x^n]]))/(4 + 9*b^2*n^
2)
```

Maple [F]

$$\int \sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{3}{2}}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(sin(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(sin(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \sin^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \sin(b\log(cx^n) + a)^{\frac{3}{2}}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int \sin^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \sin(b\log(cx^n) + a)^{\frac{3}{2}}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sin^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \sin(a + b\,\ln(c\,x^n))^{3/2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(3/2),x)
[Out] int(sin(a + b*log(c*x^n))^(3/2), x)
```

3.60 $\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 461
Rubi [A] (verified) 461
Mathematica [A] (verified) 462
Maple [A] (verified) 462
Fricas [C] (verification not implemented) 463
Sympy [F] 463
Maxima [F] 464
Giac [F] 464
Mupad [B] (verification not implemented) 464

Optimal result

Integrand size = 19, antiderivative size = 68

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right),2\right)}{3bn} - \frac{2\cos(a+b\log(cx^n))\sqrt{\sin(a+b\log(cx^n))}}{3bn}$$

```
[Out] -2/3*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(
c*x^n))*EllipticF(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))/b/n-2/3*cos(a+
b*ln(c*x^n))*sin(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {2715, 2720}

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right),2\right)}{3bn} - \frac{2\sqrt{\sin(a+b\log(cx^n))}\cos(a+b\log(cx^n))}{3bn}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] (2*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2])/(3*b*n) - (2*Cos[a + b*Log[c*
x^n]]*Sqrt[Sin[a + b*Log[c*x^n]]])/(3*b*n)
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sin^{\frac{3}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\
&= -\frac{2\cos(a+b\log(cx^n))\sqrt{\sin(a+b\log(cx^n))}}{3bn} + \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx, x, \log(cx^n)\right)}{3n}\\
&= \frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right), 2\right)}{3bn} - \frac{2\cos(a+b\log(cx^n))\sqrt{\sin(a+b\log(cx^n))}}{3bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.85

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\left(\text{EllipticF}\left(\frac{1}{4}(-2a+\pi-2b\log(cx^n)), 2\right) + \cos(a+b\log(cx^n))\sqrt{\sin(a+b\log(cx^n))}\right)}{3bn}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(3/2)/x,x]
[Out] (-2*(EllipticF[(-2*a + Pi - 2*b*Log[c*x^n])/4, 2] + Cos[a + b*Log[c*x^n]]*S
qrt[Sin[a + b*Log[c*x^n]]]))/(3*b*n)
```

Maple [A] (verified)

Time = 0.95 (sec) , antiderivative size = 131, normalized size of antiderivative = 1.93

method	result
derivativedivides	$\frac{\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\ \mathrm{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)}{3}-\frac{2\cos(a+b\ln(c\,x^n))^2\,\mathrm{s}}{3}}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$
default	$\frac{\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\ \mathrm{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)}{3}-\frac{2\cos(a+b\ln(c\,x^n))^2\,\mathrm{s}}{3}}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$

```
[In] int(sin(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n*(1/3*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin
(a+b*ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-
2/3*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n)))/cos(a+b*ln(c*x^n))/sin(a+b*ln(
c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.10 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.63

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\sqrt{2}\sqrt{-i}\mathrm{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)+i\,\sin(bn\log(x)+b\log(c)+a))+\sqrt{2}\sqrt{}}{}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
```

```
[Out] 1/3*(sqrt(2)*sqrt(-I)*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) +
 a) + I*sin(b*n*log(x) + b*log(c) + a)) + sqrt(2)*sqrt(I)*weierstrassPInver
se(4, 0, cos(b*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a))
 - 2*cos(b*n*log(x) + b*log(c) + a)*sqrt(sin(b*n*log(x) + b*log(c) + a)))/(
b*n)
```

Sympy [F]

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(3/2)/x,x)
```

```
[Out] Integral(sin(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^{\frac{3}{2}}}{x}\,dx$$

[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")

[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x, x)

Giac [F]

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^{\frac{3}{2}}}{x}\,dx$$

[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")

[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x, x)

Mupad [B] (verification not implemented)

Time = 26.06 (sec) , antiderivative size = 65, normalized size of antiderivative = 0.96

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(a+b\ln(c\,x^n))\,\sin(a+b\ln(c\,x^n))^{5/2}\,{}_2F_1\left(-\frac{1}{4},\frac{1}{2};\ \frac{3}{2};\ \cos(a+b\ln(c\,x^n))^2\right)}{b\,n\left(\sin(a+b\ln(c\,x^n))^2\right)^{5/4}}$$

[In] int(sin(a + b*log(c*x^n))^(3/2)/x,x)

[Out] -(cos(a + b*log(c*x^n))*sin(a + b*log(c*x^n))^(5/2)*hypergeom([-1/4, 1/2], 3/2, cos(a + b*log(c*x^n))^2))/(b*n*(sin(a + b*log(c*x^n))^2)^(5/4))

3.61 $\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 465
Rubi [A] (verified) 465
Mathematica [A] (verified) 467
Maple [F] 467
Fricas [F(-2)] 467
Sympy [F] 468
Maxima [F] 468
Giac [F] 468
Mupad [F(-1)] 468

Optimal result

Integrand size = 19, antiderivative size = 111

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3+\frac{2i}{bn}\right),\frac{1}{4}\left(1+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(2+3ibn)x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] -2*hypergeom([-3/2, -3/4+1/2*I/b/n],[1/4+1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I
*b))*sin(a+b*ln(c*x^n))^(3/2)/(2+3*I*b*n)/x/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^
(3/2)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4581, 4579, 371}

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(\frac{2i}{bn}-3\right),\frac{1}{4}\left(1+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x(2+3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(3/2)/x^2,x]
```

```
[Out] (-2*Hypergeometric2F1[-3/2, (-3 + (2*I)/(b*n))/4, (1 + (2*I)/(b*n))/4, E^((
2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^(3/2))/((2 + (3*I)*b*n)*x*
(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sin^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{nx}\\
&= \frac{\left((cx^n)^{\frac{3ib}{2}+\frac{1}{n}}\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}-\frac{1}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{nx\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}\\
&= -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3+\frac{2i}{bn}\right),\frac{1}{4}\left(1+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{(2+3ibn)x\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.92 (sec) , antiderivative size = 220, normalized size of antiderivative = 1.98

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2}\,dx = \frac{6b^2\sqrt{2-2e^{2i(a+b\log(cx^n))}}n^2\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}+\frac{i}{2bn},\frac{5}{4}+\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-i(a+b\log(cx^n))}\left(-1+e^{2i(a+b\log(cx^n))}\right)}(2+3ibn)(2i+bn)(2i+3bn)x} - \frac{2\sqrt{\sin(a+b\log(cx^n))}(3bn\cos(a+b\log(cx^n))+2\sin(a+b\log(cx^n)))}{(4+9b^2n^2)\,x}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(3/2)/x^2,x]
```

```
[Out] (6*b^2*Sqrt[2 - 2*E^((2*I)*(a + b*Log[c*x^n]))]*n^2*Hypergeometric2F1[1/2,
1/4 + (I/2)/(b*n), 5/4 + (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(Sqrt[
((-I)*(-1 + E^((2*I)*(a + b*Log[c*x^n]))))/E^(I*(a + b*Log[c*x^n]))]*(2 + (
3*I)*b*n)*(2*I + b*n)*(2*I + 3*b*n)*x) - (2*Sqrt[Sin[a + b*Log[c*x^n]]]*(3*
b*n*Cos[a + b*Log[c*x^n]] + 2*Sin[a + b*Log[c*x^n]]))/((4 + 9*b^2*n^2)*x)
```

Maple [F]

$$\int \frac{\sin(a+b\ln(c\,x^n))^{\frac{3}{2}}}{x^2}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^(3/2)/x^2,x)
```

```
[Out] int(sin(a+b*ln(c*x^n))^(3/2)/x^2,x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^2,x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(3/2)/x**2,x)
[Out] Integral(sin(a + b*log(c*x**n))**(3/2)/x**2, x)
```

Maxima [F]

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(b\log\left(cx^n\right)+a\right)^{\frac{3}{2}}}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^2,x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x^2, x)
```

Giac [F]

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(b\log\left(cx^n\right)+a\right)^{\frac{3}{2}}}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^2,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^{3/2}}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(3/2)/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^(3/2)/x^2, x)
```

3.62 $\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 469
Rubi [A] (verified) 469
Mathematica [A] (verified) 470
Maple [F] 471
Fricas [F(-2)] 471
Sympy [F] 471
Maxima [F] 472
Giac [F] 472
Mupad [F(-1)] 472

Optimal result

Integrand size = 19, antiderivative size = 111

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3+\frac{4i}{bn}\right),\frac{1}{4}\left(1+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{(4+3ibn)x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] -2*hypergeom([-3/2, -3/4+I/b/n],[1/4+I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))*sin
(a+b*ln(c*x^n))^(3/2)/(4+3*I*b*n)/x^2/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4581, 4579, 371}

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx = -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(\frac{4i}{bn}-3\right),\frac{1}{4}\left(1+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^2(4+3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(3/2)/x^3,x]
```

```
[Out] (-2*Hypergeometric2F1[-3/2, (-3 + (4*I)/(b*n))/4, (1 + (4*I)/(b*n))/4, E^((
2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^(3/2))/((4 + (3*I)*b*n)*x^
2*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sin^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{\left((cx^n)^{\frac{3ib}{2}+\frac{2}{n}}\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}-\frac{2}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{nx^2\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}\\
&= -\frac{2\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3+\frac{4i}{bn}\right),\frac{1}{4}\left(1+\frac{4i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{(4+3ibn)x^2\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.93 (sec) , antiderivative size = 216, normalized size of antiderivative = 1.95

$$\begin{aligned}
&\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx\\
&= \frac{6b^2\sqrt{2-2e^{2i(a+b\log(cx^n))}}n^2\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}+\frac{i}{bn},\frac{5}{4}+\frac{i}{bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-i(a+b\log(cx^n))}\left(-1+e^{2i(a+b\log(cx^n))}\right)}(4+3ibn)(4i+bn)(4i+3bn)x^2}\\
&\quad -\frac{2\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}(3bn\cos\left(a+b\log\left(cx^n\right)\right)+4\sin\left(a+b\log\left(cx^n\right)\right))}{\left(16+9b^2n^2\right)x^2}
\end{aligned}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(3/2)/x^3,x]
```

```
[Out] (6*b^2*Sqrt[2 - 2*E^((2*I)*(a + b*Log[c*x^n]))]*n^2*Hypergeometric2F1[1/2,
1/4 + I/(b*n), 5/4 + I/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(Sqrt[((-I)*(-
1 + E^((2*I)*(a + b*Log[c*x^n]))))/E^(I*(a + b*Log[c*x^n]))]*(4 + (3*I)*b*n
)*(4*I + b*n)*(4*I + 3*b*n)*x^2) - (2*Sqrt[Sin[a + b*Log[c*x^n]]]*(3*b*n*Co
s[a + b*Log[c*x^n]] + 4*Sin[a + b*Log[c*x^n]]))/((16 + 9*b^2*n^2)*x^2)
```

Maple [F]

$$\int \frac{\sin \left(a+b \ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}}{x^{3}}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^(3/2)/x^3,x)
```

```
[Out] int(sin(a+b*ln(c*x^n))^(3/2)/x^3,x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^3,x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx=\int \frac{\sin^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**(3/2)/x**3,x)
```

```
[Out] Integral(sin(a + b*log(c*x**n))**(3/2)/x**3, x)
```

Maxima [F]

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(b\log(cx^n)+a)^{\frac{3}{2}}}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^3,x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x^3, x)
```

Giac [F]

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(b\log(cx^n)+a)^{\frac{3}{2}}}{x^3}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^(3/2)/x^3,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^(3/2)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^{\frac{3}{2}}(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sin(a+b\,\ln(c\,x^n))^{3/2}}{x^3}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^(3/2)/x^3,x)
[Out] int(sin(a + b*log(c*x^n))^(3/2)/x^3, x)
```

3.63 $\int \frac{1}{\sqrt{\sin(a+b\log(cx^n))}}\,dx$

Optimal result . . . 473
Rubi [A] (verified) . . . 473
Mathematica [A] (verified) . . . 474
Maple [F] . . . 475
Fricas [F(-2)] . . . 475
Sympy [F] . . . 475
Maxima [F] . . . 475
Giac [F] . . . 476
Mupad [F(-1)] . . . 476

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx = \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)}{(2+ibn)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}$$

```
[Out] 2*x*hypergeom([1/2, 1/4-1/2*I/b/n],[5/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*
b))*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)/(2+I*b*n)/sin(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4571, 4579, 371}

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx = \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)}{(2+ibn)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}$$

```
[In] Int[1/Sqrt[Sin[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, (1 - (2
*I)/(b*n))/4, (5 - (2*I)/(b*n))/4, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 + I*
b*n)*Sqrt[Sin[a + b*Log[c*x^n]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sqrt{\sin(a+b\log(x))}}\,dx, x, cx^n\right)}{n}\\ &= \frac{\left(x(cx^n)^{-\frac{ib}{2}-\frac{1}{n}}\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{ib}{2}+\frac{1}{n}}}{\sqrt{1-e^{2ia}x^{2ib}}}\,dx, x, cx^n\right)}{n\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\\ &= \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+ibn)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.41 (sec) , antiderivative size = 132, normalized size of antiderivative = 1.21

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx = -\frac{2i\sqrt{2-2e^{2i(a+b\log(cx^n))}}\,x\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-i(a+b\log(cx^n))}\left(-1+e^{2i(a+b\log(cx^n))}\right)}(-2i+bn)}$$

```
[In] Integrate[1/Sqrt[Sin[a + b*Log[c*x^n]]],x]
[Out] ((-2*I)*Sqrt[2 - 2*E^((2*I)*(a + b*Log[c*x^n]))]*x*Hypergeometric2F1[1/2, 1
/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(Sqrt[(
(-I)*(-1 + E^((2*I)*(a + b*Log[c*x^n]))))/E^(I*(a + b*Log[c*x^n]))]*(-2*I +
 b*n))
```

Maple [F]

$$\int \frac{1}{\sqrt{\sin\left(a+b\ln\left(c\,x^{n}\right)\right)}}dx$$

[In] int(1/sin(a+b*ln(c*x^n))^(1/2),x)

[Out] int(1/sin(a+b*ln(c*x^n))^(1/2),x)

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \text{Exception raised: TypeError}$$

[In] integrate(1/sin(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integrate: implementation incomplete (constant residues)

Sympy [F]

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx$$

[In] integrate(1/sin(a+b*ln(c*x**n))**(1/2),x)

[Out] Integral(1/sqrt(sin(a + b*log(c*x**n))), x)

Maxima [F]

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

[In] integrate(1/sin(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")

[Out] integrate(1/sqrt(sin(b*log(c*x^n) + a)), x)

Giac [F]

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/sin(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/sqrt(sin(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)}}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^(1/2),x)
[Out] int(1/sin(a + b*log(c*x^n))^(1/2), x)
```

3.64 $\int \frac{1}{x\sqrt{\sin(a+b\log(cx^n))}}\,dx$

Optimal result 477
Rubi [A] (verified) 477
Mathematica [A] (verified) 478
Maple [A] (verified) 478
Fricas [C] (verification not implemented) 478
Sympy [F] 479
Maxima [F] 479
Giac [F] 479
Mupad [B] (verification not implemented) 479

Optimal result

Integrand size = 19, antiderivative size = 29

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right),2\right)}{bn}$$

```
[Out] -2*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*
x^n))*EllipticF(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.053, Rules used = {2720}

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)-\frac{\pi}{2}\right),2\right)}{bn}$$

```
[In] Int[1/(x*Sqrt[Sin[a + b*Log[c*x^n]]]),x]
```

```
[Out] (2*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2])/(b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx,x,\log\left(cx^n\right)\right)}{n}\\&=\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right),2\right)}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.11 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.10

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx = -\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(-a+\frac{\pi}{2}-b\log\left(cx^n\right)\right),2\right)}{bn}$$

```
[In] Integrate[1/(x*Sqrt[Sin[a + b*Log[c*x^n]]]),x]
[Out] (-2*EllipticF[(-a + Pi/2 - b*Log[c*x^n])/2, 2])/(b*n)
```

Maple [A] (verified)

Time = 0.87 (sec) , antiderivative size = 102, normalized size of antiderivative = 3.52

method	result	size
derivativedivides	$\frac{\sqrt{\sin(a+b\ln(c\,x^{n}))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^{n}))+2}\,\sqrt{-\sin(a+b\ln(c\,x^{n}))}\ \text{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^{n}))+1},\frac{\sqrt{2}}{2}\right)}{n\cos(a+b\ln(c\,x^{n}))\sqrt{\sin(a+b\ln(c\,x^{n}))}\,b}$	102
default	$\frac{\sqrt{\sin(a+b\ln(c\,x^{n}))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^{n}))+2}\,\sqrt{-\sin(a+b\ln(c\,x^{n}))}\ \text{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^{n}))+1},\frac{\sqrt{2}}{2}\right)}{n\cos(a+b\ln(c\,x^{n}))\sqrt{\sin(a+b\ln(c\,x^{n}))}\,b}$	102

```
[In] int(1/x/sin(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
[Out] 1/n*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*
ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))/cos(a
+b*ln(c*x^n))/sin(a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 82, normalized size of antiderivative = 2.83

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}\,dx$$
$$= \frac{\sqrt{2}\sqrt{-i}\text{weierstrassPInverse}(4,0,\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+i\,\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right))+\sqrt{2}\sqrt{i}}{bn}$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] (sqrt(2)*sqrt(-I)*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a)
+ I*sin(b*n*log(x) + b*log(c) + a)) + sqrt(2)*sqrt(I)*weierstrassPInverse(4
, 0, cos(b*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b
*n)
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx$$

```
[In] integrate(1/x/sin(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(1/(x*sqrt(sin(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/(x*sqrt(sin(b*log(c*x^n) + a))), x)
```

Giac [F]

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\sin\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/(x*sqrt(sin(b*log(c*x^n) + a))), x)
```

Mupad [B] (verification not implemented)

Time = 25.90 (sec) , antiderivative size = 26, normalized size of antiderivative = 0.90

$$\int \frac{1}{x\sqrt{\sin\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=-\frac{2\,\mathrm{F}\left(\frac{\pi}{4}-\frac{a}{2}-\frac{b\,\ln\left(c\,x^{n}\right)}{2}\middle|2\right)}{b\,n}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))^(1/2)),x)
[Out] -(2*ellipticF(pi/4 - a/2 - (b*log(c*x^n))/2, 2))/(b*n)
```

3.65 $\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 480
Rubi [A] (verified) 480
Mathematica [A] (verified) 481
Maple [F] 482
Fricas [F(-2)] 482
Sympy [F] 482
Maxima [F] 482
Giac [F(-1)] 483
Mupad [F(-1)] 483

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*hypergeom([3/2, 3/4-1/2*I/b/n],[7/
4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+3*I*b*n)/sin(a+b*ln(c*x^n))^(3/
2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4571, 4579, 371}

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (2*x*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Hypergeometric2F1[3/2, (3 -
(2*I)/(b*n))/4, (7 - (2*I)/(b*n))/4, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 +
(3*I)*b*n)*Sin[a + b*Log[c*x^n]]^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sin^{\frac{3}{2}}(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{3ib}{2}-\frac{1}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3ib}{2}+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{3/2}}\,dx,x,cx^n\right)}{n\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

$$= \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

Mathematica [A] (verified)

Time = 12.80 (sec) , antiderivative size = 164, normalized size of antiderivative = 1.50

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{4\sqrt{2}e^{2ia}x(cx^n)^{2ib}\sqrt{-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},e^{2ia}(cx^n\right.}{(-2-3ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(-3/2),x]
```

[Out] (4*Sqrt[2]*E^((2*I)*a)*x*(c*x^n)^((2*I)*b)*Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b))]*Hypergeometric2F1[3/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((-2 - (3*I)*b*n)*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)])

Maple [F]

$$\int \frac{1}{\sin \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}}dx$$

[In] int(1/sin(a+b*ln(c*x^n))^(3/2),x)

[Out] int(1/sin(a+b*ln(c*x^n))^(3/2),x)

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

[In] integrate(1/sin(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integrate: implementation incomplete (constant residues)

Sympy [F]

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

[In] integrate(1/sin(a+b*ln(c*x**n))**(3/2),x)

[Out] Integral(sin(a + b*log(c*x**n))**(-3/2), x)

Maxima [F]

$$\int \frac{1}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sin\left(b\log(cx^n)+a\right)^{\frac{3}{2}}}\,dx$$

[In] integrate(1/sin(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")

[Out] integrate(sin(b*log(c*x^n) + a)^(-3/2), x)

Giac [F(-1)]

Timed out.

$$\int \frac{1}{\sin^{\frac{3}{2}}(a + b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/sin(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sin^{\frac{3}{2}}(a + b\log(cx^n))}\,dx = \int \frac{1}{\sin\left(a + b\,\ln\left(c\,x^n\right)\right)^{3/2}}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^(3/2),x)
[Out] int(1/sin(a + b*log(c*x^n))^(3/2), x)
```

3.66 $\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result . . . 484
Rubi [A] (verified) . . . 484
Mathematica [A] (verified) . . . 485
Maple [A] (verified) . . . 485
Fricas [C] (verification not implemented) . . . 486
Sympy [F] . . . 486
Maxima [F] . . . 486
Giac [F(-1)] . . . 487
Mupad [B] (verification not implemented) . . . 487

Optimal result

Integrand size = 19, antiderivative size = 64

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{2E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)}{bn}-\frac{2\cos(a+b\log(cx^n))}{bn\sqrt{\sin(a+b\log(cx^n))}}$$

```
[Out] 2*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*x
^n))*EllipticE(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))/b/n-2*cos(a+b*ln(
c*x^n))/b/n/sin(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 64, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {2716, 2719}

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{2E\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right)\middle|2\right)}{bn}-\frac{2\cos(a+b\log(cx^n))}{bn\sqrt{\sin(a+b\log(cx^n))}}$$

```
[In] Int[1/(x*Sin[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (-2*EllipticE[(a - Pi/2 + b*Log[c*x^n])/2, 2])/(b*n) - (2*Cos[a + b*Log[c*x
^n]])/(b*n*Sqrt[Sin[a + b*Log[c*x^n]]])
```

Rule 2716

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Sin[c + d*x])^(n + 1)/(b*d*(n + 1))), x] + Dist[(n + 2)/(b^2*(n + 1)), In
t[(b*Sin[c + d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] &&
IntegerQ[2*n]
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sin^{\frac{3}{2}}(a+bx)}\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{2\cos(a+b\log(cx^n))}{bn\sqrt{\sin(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int \sqrt{\sin(a+bx)}\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{2E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|\,2\right)}{bn} - \frac{2\cos(a+b\log(cx^n))}{bn\sqrt{\sin(a+b\log(cx^n))}} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.16 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.89

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2\left(E\left(\frac{1}{4}(-2a+\pi-2b\log(cx^n))\middle|\,2\right) - \frac{\cos(a+b\log(cx^n))}{\sqrt{\sin(a+b\log(cx^n))}}\right)}{bn}$$

```
[In] Integrate[1/(x*Sin[a + b*Log[c*x^n]]^(3/2)),x]
[Out] (2*(EllipticE[(-2*a + Pi - 2*b*Log[c*x^n])/4, 2] - Cos[a + b*Log[c*x^n]]/Sq
rt[Sin[a + b*Log[c*x^n]]]))/(b*n)
```

Maple [A] (verified)

Time = 0.98 (sec) , antiderivative size = 190, normalized size of antiderivative = 2.97

method	result
derivativedivides	$\frac{2\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\ \text{EllipticE}\left(\sqrt{\sin(a+b\ln(cx^n))+1}, \frac{\sqrt{2}}{2}\right)-\sqrt{\sin(}}{n\cos(a+b\ln(cx}$
default	$\frac{2\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\ \text{EllipticE}\left(\sqrt{\sin(a+b\ln(cx^n))+1}, \frac{\sqrt{2}}{2}\right)-\sqrt{\sin(}}{n\cos(a+b\ln(cx}$

```
[In] int(1/x/sin(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
[Out] 1/n*(2*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a
+b*ln(c*x^n)))^(1/2)*EllipticE((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-(s
in(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x
```

```
^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-2*cos(a+b*l
n(c*x^n))^2)/cos(a+b*ln(c*x^n))/sin(a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 156, normalized size of antiderivative = 2.44

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{-i\sqrt{2}\sqrt{-i}\sin(bn\log(x)+b\log(c)+a)\,\mathrm{weierstrassZeta}(4,0,\mathrm{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log}{}$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] (-I*sqrt(2)*sqrt(-I)*sin(b*n*log(x) + b*log(c) + a)*weierstrassZeta(4, 0, w
eierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x)
+ b*log(c) + a))) + I*sqrt(2)*sqrt(I)*sin(b*n*log(x) + b*log(c) + a)*weiers
trassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) -
I*sin(b*n*log(x) + b*log(c) + a))) - 2*cos(b*n*log(x) + b*log(c) + a)*sqrt(
sin(b*n*log(x) + b*log(c) + a)))/(b*n*sin(b*n*log(x) + b*log(c) + a))
```

Sympy [F]

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/sin(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(1/(x*sin(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\sin(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
```

```
[Out] integrate(1/(x*sin(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.62 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.02

$$\int \frac{1}{x\sin^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{\cos(a+b\ln(c\,x^n))\,\left(\sin(a+b\ln(c\,x^n))^2\right)^{1/4}\,{}_2F_1\left(\frac{1}{2},\frac{5}{4};\ \frac{3}{2};\ \cos(a+b\ln(c\,x^n))^2\right)}{b\,n\,\sqrt{\sin(a+b\ln(c\,x^n))}}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))^(3/2)),x)
```

```
[Out] -(cos(a + b*log(c*x^n))*(sin(a + b*log(c*x^n))^2)^(1/4)*hypergeom([1/2, 5/4
], 3/2, cos(a + b*log(c*x^n))^2))/(b*n*sin(a + b*log(c*x^n))^(1/2))
```

3.67 $\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 488
Rubi [A] (verified) 488
Mathematica [A] (verified) 489
Maple [F] 490
Fricas [F(-2)] 490
Sympy [F(-1)] 490
Maxima [F] 491
Giac [F(-1)] 491
Mupad [F(-1)] 491

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\sin^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*hypergeom([5/2, 5/4-1/2*I/b/n],[9/
4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+5*I*b*n)/sin(a+b*ln(c*x^n))^(5/
2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4571, 4579, 371}

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\sin^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Hypergeometric2F1[5/2, (5 -
(2*I)/(b*n))/4, (9 - (2*I)/(b*n))/4, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 +
(5*I)*b*n)*Sin[a + b*Log[c*x^n]]^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sin^{\frac{5}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{5ib}{2}-\frac{1}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{5ib}{2}+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{5/2}}\,dx, x, cx^n\right)}{n\sin^{\frac{5}{2}}(a+b\log(cx^n))}$$

$$= \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\sin^{\frac{5}{2}}(a+b\log(cx^n))}$$

Mathematica [A] (verified)

Time = 2.43 (sec) , antiderivative size = 191, normalized size of antiderivative = 1.75

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(\frac{(2-ibn)\sqrt{2-2e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)}}-\frac{bn\cos(a+b\log(cx^n))+2\sin(a+b\log(cx^n))}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\right)}{3b^2n^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*(((2 - I*b*n)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric
2F1[1/2, 1/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))
])/Sqrt[((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b))
] - (b*n*Cos[a + b*Log[c*x^n]] + 2*Sin[a + b*Log[c*x^n]])/Sin[a + b*Log[c*x
^n]]^(3/2)))/(3*b^2*n^2)
```

Maple [F]

$$\int \frac{1}{\sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{5}{2}}}dx$$

```
[In] int(1/sin(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(1/sin(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sin^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/sin(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{\sin^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\text{Timed out}$$

```
[In] integrate(1/sin(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sin(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/sin(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^(-5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/sin(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^{5/2}}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^(5/2),x)
[Out] int(1/sin(a + b*log(c*x^n))^(5/2), x)
```

3.68 $\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 492
Rubi [A] (verified) 492
Mathematica [A] (verified) 493
Maple [A] (verified) 493
Fricas [C] (verification not implemented) 494
Sympy [F(-1)] 494
Maxima [F] 495
Giac [F(-1)] 495
Mupad [B] (verification not implemented) 495

Optimal result

Integrand size = 19, antiderivative size = 68

$$\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right),2\right)}{3bn}-\frac{2\cos(a+b\log(cx^n))}{3bn\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] -2/3*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(
c*x^n))*EllipticF(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))/b/n-2/3*cos(a+
b*ln(c*x^n))/b/n/sin(a+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {2716, 2720}

$$\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right),2\right)}{3bn}-\frac{2\cos(a+b\log(cx^n))}{3bn\sin^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[1/(x*Sin[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (2*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2])/(3*b*n) - (2*Cos[a + b*Log[c*
x^n]])/(3*b*n*Sin[a + b*Log[c*x^n]]^(3/2))
```

Rule 2716

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Sin[c + d*x])^(n + 1)/(b*d*(n + 1))), x] + Dist[(n + 2)/(b^2*(n + 1)), In
t[(b*Sin[c + d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] &&
IntegerQ[2*n]
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sin^{\frac{5}{2}}(a+bx)}\,dx, x, \log(cx^n)\right)}{n}\\
&= -\frac{2\cos(a+b\log(cx^n))}{3bn\sin^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx, x, \log(cx^n)\right)}{3n}\\
&= \frac{2\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right), 2\right)}{3bn} - \frac{2\cos(a+b\log(cx^n))}{3bn\sin^{\frac{3}{2}}(a+b\log(cx^n))}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.17 (sec) , antiderivative size = 61, normalized size of antiderivative = 0.90

$$\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2\left(\text{EllipticF}\left(\frac{1}{4}(2a-\pi+2b\log(cx^n)), 2\right) - \frac{\cos(a+b\log(cx^n))}{\sin^{\frac{3}{2}}(a+b\log(cx^n))}\right)}{3bn}$$

```
[In] Integrate[1/(x*Sin[a + b*Log[c*x^n]]^(5/2)),x]
[Out] (2*(EllipticF[(2*a - Pi + 2*b*Log[c*x^n])/4, 2] - Cos[a + b*Log[c*x^n]]/Sin
[a + b*Log[c*x^n]]^(3/2)))/(3*b*n)
```

Maple [A] (verified)

Time = 0.88 (sec) , antiderivative size = 131, normalized size of antiderivative = 1.93

method	result
derivativedivides	$\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\ \mathrm{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)\sin(a+b\ln}{3n\sin(a+b\ln(c\,x^n))^{\frac{3}{2}}\cos(a+b\ln(c\,x^n))b}$
default	$\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\ \mathrm{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)\sin(a+b\ln}{3n\sin(a+b\ln(c\,x^n))^{\frac{3}{2}}\cos(a+b\ln(c\,x^n))b}$

```
[In] int(1/x/sin(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/3/n/sin(a+b*ln(c*x^n))^(3/2)*((sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln
(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))
+1)^(1/2),1/2*2^(1/2))*sin(a+b*ln(c*x^n))-2*cos(a+b*ln(c*x^n))^2)/cos(a+b*l
n(c*x^n))/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 177, normalized size of antiderivative = 2.60

$$\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{\left(\sqrt{2}\sqrt{-i}\cos(bn\log(x)+b\log(c)+a)^2-\sqrt{2}\sqrt{-i}\right)\mathrm{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)}{}$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] 1/3*((sqrt(2)*sqrt(-I)*cos(b*n*log(x) + b*log(c) + a)^2 - sqrt(2)*sqrt(-I))
*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x
) + b*log(c) + a)) + (sqrt(2)*sqrt(I)*cos(b*n*log(x) + b*log(c) + a)^2 - sq
rt(2)*sqrt(I))*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) - I
*sin(b*n*log(x) + b*log(c) + a)) + 2*cos(b*n*log(x) + b*log(c) + a)*sqrt(si
n(b*n*log(x) + b*log(c) + a)))/(b*n*cos(b*n*log(x) + b*log(c) + a)^2 - b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{x\sin^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/sin(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{x\sin^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \frac{1}{x\sin\left(b\log\left(cx^{n}\right)+a\right)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(1/(x*sin(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\sin^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/sin(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 26.77 (sec) , antiderivative size = 65, normalized size of antiderivative = 0.96

$$\int \frac{1}{x\sin^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = -\frac{\cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)\,\left(\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)^{2}\right)^{3/4}\,{}_2\mathrm{F}_1\left(\frac{1}{2},\frac{7}{4};\ \frac{3}{2};\ \cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)^{2}\right)}{b\,n\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)^{3/2}}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))^(5/2)),x)
[Out] -(cos(a + b*log(c*x^n))*(sin(a + b*log(c*x^n))^2)^(3/4)*hypergeom([1/2, 7/4
], 3/2, cos(a + b*log(c*x^n))^2))/(b*n*sin(a + b*log(c*x^n))^(3/2))
```

3.69 $\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx$

Optimal result . . . 496
Rubi [A] (verified) . . . 496
Mathematica [A] (verified) . . . 497
Maple [F] . . . 497
Fricas [A] (verification not implemented) . . . 498
Sympy [F] . . . 498
Maxima [B] (verification not implemented) . . . 498
Giac [F] . . . 499
Mupad [B] (verification not implemented) . . . 499

Optimal result

Integrand size = 15, antiderivative size = 49

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \frac{e^{-2ia}(1-c^4e^{2ia}x^4)}{2c^4x^3\sin^{\frac{3}{2}}(a-2i\log(cx))}$$

```
[Out] 1/2*(1-c^4*exp(2*I*a)*x^4)/c^4/exp(2*I*a)/x^3/sin(a-2*I*ln(c*x))^(3/2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4571, 4569, 267}

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \frac{e^{-2ia}(1-e^{2ia}c^4x^4)}{2c^4x^3\sin^{\frac{3}{2}}(a-2i\log(cx))}$$

```
[In] Int[Sin[a - (2*I)*Log[c*x]]^(-3/2),x]
```

```
[Out] (1 - c^4*E^((2*I)*a)*x^4)/(2*c^4*E^((2*I)*a)*x^3*Sin[a - (2*I)*Log[c*x]]^(3
/2))
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4569

```
Int[Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :> Dist[Sin[d*(a + b
*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), Int[(1 - E^(2*I*
```

```
a*d)*x^(2*I*b*d))^p/x^(I*b*d*p), x], x] /; FreeQ[{a, b, d, p}, x] &&  !Inte
gerQ[p]
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(x))}\,dx, x, cx\right)}{c}\\
&= \frac{\left(1-c^4e^{2ia}x^4\right)^{3/2}\text{Subst}\left(\int \frac{x^3}{\left(1-e^{2ia}x^4\right)^{3/2}}\,dx, x, cx\right)}{c^4x^3\sin^{\frac{3}{2}}(a-2i\log(cx))}\\
&= \frac{e^{-2ia}\left(1-c^4e^{2ia}x^4\right)}{2c^4x^3\sin^{\frac{3}{2}}(a-2i\log(cx))}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.15 (sec) , antiderivative size = 81, normalized size of antiderivative = 1.65

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \frac{x(\cos(a)-i\sin(a))\sqrt{\frac{-2i(-1+c^4x^4)\cos(a)+2(1+c^4x^4)\sin(a)}{c^2x^2}}}{(-1+c^4x^4)\cos(a)+i\,(1+c^4x^4)\sin(a)}$$

```
[In] Integrate[Sin[a - (2*I)*Log[c*x]]^(-3/2),x]
[Out] (x*(Cos[a] - I*Sin[a])*Sqrt[((-2*I)*(-1 + c^4*x^4)*Cos[a] + 2*(1 + c^4*x^4)
*Sin[a])/(c^2*x^2)])/((-1 + c^4*x^4)*Cos[a] + I*(1 + c^4*x^4)*Sin[a])
```

Maple [F]

$$\int \frac{1}{\sin\left(a-2i\ln\left(cx\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(1/sin(a-2*I*ln(c*x))^(3/2),x)
[Out] int(1/sin(a-2*I*ln(c*x))^(3/2),x)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.88

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx=\frac{2\sqrt{\frac{1}{2}}\sqrt{-i\,c^4x^4+i\,e^{(-2i\,a)}}e^{\left(-\frac{3}{2}i\,a\right)}}{c^5x^4-ce^{(-2i\,a)}}$$

```
[In] integrate(1/sin(a-2*I*log(c*x))^(3/2),x, algorithm="fricas")
```

```
[Out] 2*sqrt(1/2)*sqrt(-I*c^4*x^4 + I*e^(-2*I*a))*e^(-3/2*I*a)/(c^5*x^4 - c*e^(-2
*I*a))
```

Sympy [F]

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx=\int \frac{1}{\sin^{\frac{3}{2}}\left(a-2i\log\left(cx\right)\right)}\,dx$$

```
[In] integrate(1/sin(a-2*I*ln(c*x))**(3/2),x)
```

```
[Out] Integral(sin(a - 2*I*log(c*x))**(-3/2), x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 402 vs. 2(36) = 72.

Time = 0.43 (sec) , antiderivative size = 402, normalized size of antiderivative = 8.20

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx$$
$$=\frac{\left(\left(\cos\left(a\right)^2+\sin\left(a\right)^2\right)c^4x^4+2\,c^2x^2\cos\left(a\right)+1\right)^{\frac{1}{4}}\left(\left(\cos\left(a\right)^2+\sin\left(a\right)^2\right)c^4x^4-2\,c^2x^2\cos\left(a\right)+1\right)^{\frac{1}{4}}\left(\left(\left(c^4x^4\left(\left(i\right.\right.\right.\right.\right.}{}$$

```
[In] integrate(1/sin(a-2*I*log(c*x))^(3/2),x, algorithm="maxima")
```

```
[Out] ((cos(a)^2 + sin(a)^2)*c^4*x^4 + 2*c^2*x^2*cos(a) + 1)^(1/4)*((cos(a)^2 + s
in(a)^2)*c^4*x^4 - 2*c^2*x^2*cos(a) + 1)^(1/4)*((((c^4*x^4*((I + 1)*cos(3/2*
a) + (I - 1)*sin(3/2*a)) - (I + 1)*cos(1/2*a) + (I - 1)*sin(1/2*a))*cos(3/2
*arctan2(c^2*x^2*sin(a), -c^2*x^2*cos(a) + 1)) + (c^4*x^4*((I - 1)*cos(3/2*
a) - (I + 1)*sin(3/2*a)) - (I - 1)*cos(1/2*a) - (I + 1)*sin(1/2*a))*sin(3/2
*arctan2(c^2*x^2*sin(a), -c^2*x^2*cos(a) + 1)))*cos(3/2*arctan2(c^2*x^2*sin
(a), c^2*x^2*cos(a) + 1)) + ((c^4*x^4*(-(I - 1)*cos(3/2*a) + (I + 1)*sin(3/
```

```
2*a)) + (I - 1)*cos(1/2*a) + (I + 1)*sin(1/2*a))*cos(3/2*arctan2(c^2*x^2*si
n(a), -c^2*x^2*cos(a) + 1)) + (c^4*x^4*((I + 1)*cos(3/2*a) + (I - 1)*sin(3/
2*a)) - (I + 1)*cos(1/2*a) + (I - 1)*sin(1/2*a))*sin(3/2*arctan2(c^2*x^2*si
n(a), -c^2*x^2*cos(a) + 1)))*sin(3/2*arctan2(c^2*x^2*sin(a), c^2*x^2*cos(a)
 + 1)))/(((cos(a)^4 + 2*cos(a)^2*sin(a)^2 + sin(a)^4)*c^8*x^8 - 2*(cos(a)^2
 - sin(a)^2)*c^4*x^4 + 1)*c)
```

Giac [F]

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \int \frac{1}{\sin\left(a-2i\,\log\left(cx\right)\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/sin(a-2*I*log(c*x))^(3/2),x, algorithm="giac")
```

```
[Out] integrate(sin(a - 2*I*log(c*x))^(-3/2), x)
```

Mupad [B] (verification not implemented)

Time = 27.78 (sec) , antiderivative size = 50, normalized size of antiderivative = 1.02

$$\int \frac{1}{\sin^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \frac{2\,x\,\sqrt{\frac{\mathrm{e}^{-a\,1\mathrm{i}}\,1\mathrm{i}}{2\,c^2\,x^2}-\frac{c^2\,x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,1\mathrm{i}}{2}}}{c^4\,x^4\,\mathrm{e}^{a\,2\mathrm{i}}-1}$$

```
[In] int(1/sin(a - log(c*x)*2i)^(3/2),x)
```

```
[Out] (2*x*((exp(-a*1i)*1i)/(2*c^2*x^2) - (c^2*x^2*exp(a*1i)*1i)/2)^(1/2))/(c^4*x
^4*exp(a*2i) - 1)
```

3.70 $\int (ex)^m \sin^4(d(a+b\log(cx^n)))\,dx$

Optimal result 500
Rubi [A] (verified) 501
Mathematica [A] (verified) 502
Maple [F] 503
Fricas [A] (verification not implemented) 503
Sympy [F] 504
Maxima [B] (verification not implemented) 505
Giac [B] (verification not implemented) 515
Mupad [B] (verification not implemented) 1033

Optimal result

Integrand size = 21, antiderivative size = 337

$$\begin{aligned}
&\int (ex)^m \sin^4(d(a+b\log(cx^n)))\,dx \\
&= \frac{24b^4d^4n^4(ex)^{1+m}}{e(1+m)\left((1+m)^2+4b^2d^2n^2\right)\left((1+m)^2+16b^2d^2n^2\right)} \\
&\quad - \frac{24b^3d^3n^3(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)\left((1+m)^2+16b^2d^2n^2\right)} \\
&\quad + \frac{12b^2d^2(1+m)n^2(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)\left((1+m)^2+16b^2d^2n^2\right)} \\
&\quad - \frac{4bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin^3(d(a+b\log(cx^n)))}{e\left((1+m)^2+16b^2d^2n^2\right)} \\
&\quad + \frac{(1+m)(ex)^{1+m}\sin^4(d(a+b\log(cx^n)))}{e\left((1+m)^2+16b^2d^2n^2\right)}
\end{aligned}$$

```
[Out] 24*b^4*d^4*n^4*(e*x)^(1+m)/e/(1+m)/((1+m)^2+4*b^2*d^2*n^2)/((1+m)^2+16*b^2*
d^2*n^2)-24*b^3*d^3*n^3*(e*x)^(1+m)*cos(d*(a+b*ln(c*x^n)))*sin(d*(a+b*ln(c*
x^n)))/e/((1+m)^2+4*b^2*d^2*n^2)/((1+m)^2+16*b^2*d^2*n^2)+12*b^2*d^2*(1+m)*
n^2*(e*x)^(1+m)*sin(d*(a+b*ln(c*x^n)))^2/e/((1+m)^2+4*b^2*d^2*n^2)/((1+m)^2
+16*b^2*d^2*n^2)-4*b*d*n*(e*x)^(1+m)*cos(d*(a+b*ln(c*x^n)))*sin(d*(a+b*ln(c
*x^n)))^3/e/((1+m)^2+16*b^2*d^2*n^2)+(1+m)*(e*x)^(1+m)*sin(d*(a+b*ln(c*x^n)
))^4/e/((1+m)^2+16*b^2*d^2*n^2)
```

Rubi [A] (verified)

Time = 0.18 (sec) , antiderivative size = 337, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.095$, Rules used = {4575, 32}

$$\begin{aligned}
&\int (ex)^m \sin^4(d(a+b\log(cx^n)))\,dx \\
&= \frac{(m+1)(ex)^{m+1}\sin^4(d(a+b\log(cx^n)))}{e(16b^2d^2n^2+(m+1)^2)} \\
&+ \frac{12b^2d^2(m+1)n^2(ex)^{m+1}\sin^2(d(a+b\log(cx^n)))}{e(4b^2d^2n^2+(m+1)^2)(16b^2d^2n^2+(m+1)^2)} \\
&- \frac{4bdn(ex)^{m+1}\sin^3(d(a+b\log(cx^n)))\cos(d(a+b\log(cx^n)))}{e(16b^2d^2n^2+(m+1)^2)} \\
&- \frac{24b^3d^3n^3(ex)^{m+1}\sin(d(a+b\log(cx^n)))\cos(d(a+b\log(cx^n)))}{e(4b^2d^2n^2+(m+1)^2)(16b^2d^2n^2+(m+1)^2)} \\
&+ \frac{24b^4d^4n^4(ex)^{m+1}}{e(m+1)(4b^2d^2n^2+(m+1)^2)(16b^2d^2n^2+(m+1)^2)}
\end{aligned}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^4,x]
```

```
[Out] (24*b^4*d^4*n^4*(e*x)^(1 + m))/(e*(1 + m)*((1 + m)^2 + 4*b^2*d^2*n^2)*((1 +
 m)^2 + 16*b^2*d^2*n^2)) - (24*b^3*d^3*n^3*(e*x)^(1 + m)*Cos[d*(a + b*Log[c
*x^n])]*Sin[d*(a + b*Log[c*x^n])])/(e*((1 + m)^2 + 4*b^2*d^2*n^2)*((1 + m)^
2 + 16*b^2*d^2*n^2)) + (12*b^2*d^2*(1 + m)*n^2*(e*x)^(1 + m)*Sin[d*(a + b*L
og[c*x^n])]^2)/(e*((1 + m)^2 + 4*b^2*d^2*n^2)*((1 + m)^2 + 16*b^2*d^2*n^2))
 - (4*b*d*n*(e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])]*Sin[d*(a + b*Log[c*x^n]
)]^3)/(e*((1 + m)^2 + 16*b^2*d^2*n^2)) + ((1 + m)*(e*x)^(1 + m)*Sin[d*(a +
b*Log[c*x^n])]^4)/(e*((1 + m)^2 + 16*b^2*d^2*n^2))
```

Rule 32

```
Int[((a_.) + (b_.)*(x_))^(m_), x_Symbol] :> Simp[(a + b*x)^(m + 1)/(b*(m +
1)), x] /; FreeQ[{a, b, m}, x] && NeQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{4bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin^3(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)} + \frac{(1+m)(ex)^{1+m}\sin^4(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)} + \frac{(12b^2d^2n^2)\int(ex)^m\sin^2(d(a+b\log(cx^n)))\,dx}{(1+m)^2+16b^2d^2n^2}$$

$$= -\frac{24b^3d^3n^3(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e((1+m)^2+4b^2d^2n^2)((1+m)^2+16b^2d^2n^2)} + \frac{12b^2d^2(1+m)n^2(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e((1+m)^2+4b^2d^2n^2)((1+m)^2+16b^2d^2n^2)} - \frac{4bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin^3(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)} + \frac{(1+m)(ex)^{1+m}\sin^4(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)} + \frac{(24b^4d^4n^4)\int(ex)^m\,dx}{(1+m)^4+20b^2d^2(1+m)^2n^2+64b^4d^4n^4}$$

$$= \frac{24b^4d^4n^4(ex)^{1+m}}{e(1+m)((1+m)^4+20b^2d^2(1+m)^2n^2+64b^4d^4n^4)} - \frac{24b^3d^3n^3(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e((1+m)^2+4b^2d^2n^2)((1+m)^2+16b^2d^2n^2)} + \frac{12b^2d^2(1+m)n^2(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e((1+m)^2+4b^2d^2n^2)((1+m)^2+16b^2d^2n^2)} - \frac{4bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin^3(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)} + \frac{(1+m)(ex)^{1+m}\sin^4(d(a+b\log(cx^n)))}{e((1+m)^2+16b^2d^2n^2)}$$

Mathematica [A] (verified)

Time = 1.48 (sec) , antiderivative size = 341, normalized size of antiderivative = 1.01

$$\int(ex)^m\sin^4(d(a+b\log(cx^n)))\,dx = \frac{1}{8}x(ex)^m\left(\frac{3}{1+m} + \frac{4\sin(2bdn\log(x))(-2bdn\cos(2d(a-bn\log(x)+b\log(cx^n)))+(1+m)\sin(2d(a-bn\log(x)+b\log(c}{1+2m+m^2+4b^2d^2n^2} - \frac{4\cos(2bdn\log(x))((1+m)\cos(2d(a-bn\log(x)+b\log(cx^n)))+2bdn\sin(2d(a-bn\log(x)+b\log(cx}{1+2m+m^2+4b^2d^2n^2} - \frac{\sin(4bdn\log(x))(-4bdn\cos(4d(a-bn\log(x)+b\log(cx^n)))+(1+m)\sin(4d(a-bn\log(x)+b\log(cx}{1+2m+m^2+16b^2d^2n^2} + \frac{\cos(4bdn\log(x))((1+m)\cos(4d(a-bn\log(x)+b\log(cx^n)))+4bdn\sin(4d(a-bn\log(x)+b\log(cx^n)}{1+2m+m^2+16b^2d^2n^2}\right.$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^4,x]
```

```
[Out] (x*(e*x)^m*(3/(1 + m) + (4*Sin[2*b*d*n*Log[x]]*(-2*b*d*n*Cos[2*d*(a - b*n*L
og[x] + b*Log[c*x^n])] + (1 + m)*Sin[2*d*(a - b*n*Log[x] + b*Log[c*x^n])]))
/(1 + 2*m + m^2 + 4*b^2*d^2*n^2) - (4*Cos[2*b*d*n*Log[x]]*((1 + m)*Cos[2*d*
(a - b*n*Log[x] + b*Log[c*x^n])] + 2*b*d*n*Sin[2*d*(a - b*n*Log[x] + b*Log[
c*x^n])]))/(1 + 2*m + m^2 + 4*b^2*d^2*n^2) - (Sin[4*b*d*n*Log[x]]*(-4*b*d*n
*Cos[4*d*(a - b*n*Log[x] + b*Log[c*x^n])] + (1 + m)*Sin[4*d*(a - b*n*Log[x]
 + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 16*b^2*d^2*n^2) + (Cos[4*b*d*n*Log[x]]
*((1 + m)*Cos[4*d*(a - b*n*Log[x] + b*Log[c*x^n])] + 4*b*d*n*Sin[4*d*(a - b
*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 16*b^2*d^2*n^2)))/8
```

Maple [F]

$$\int (ex)^m \sin\left(d(a + b\ln\left(c\,x^n\right))\right)^4 dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^4,x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^4,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.29 (sec) , antiderivative size = 467, normalized size of antiderivative = 1.39

$$\int (ex)^m \sin^4\left(d(a + b\log\left(cx^n\right))\right)\,dx = \frac{4\left(\left(4\left(b^3d^3m + b^3d^3\right)n^3 + \left(bdm^3 + 3\,bdm^2 + 3\,bdm + bd\right)n\right)x\cos\left(bdn\log\left(x\right) + bd\log\left(c\right) + ad\right)^3 - \left(10\left(b^3d\right.\right.\right.}{}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^4,x, algorithm="fricas")
```

```
[Out] (4*((4*(b^3*d^3*m + b^3*d^3)*n^3 + (b*d*m^3 + 3*b*d*m^2 + 3*b*d*m + b*d)*n)
*x*cos(b*d*n*log(x) + b*d*log(c) + a*d)^3 - (10*(b^3*d^3*m + b^3*d^3)*n^3 +
 (b*d*m^3 + 3*b*d*m^2 + 3*b*d*m + b*d)*n)*x*cos(b*d*n*log(x) + b*d*log(c) +
 a*d))*e^(m*log(e) + m*log(x))*sin(b*d*n*log(x) + b*d*log(c) + a*d) + ((m^4
 + 4*m^3 + 4*(b^2*d^2*m^2 + 2*b^2*d^2*m + b^2*d^2)*n^2 + 6*m^2 + 4*m + 1)*x
*cos(b*d*n*log(x) + b*d*log(c) + a*d)^4 - 2*(m^4 + 4*m^3 + 10*(b^2*d^2*m^2
+ 2*b^2*d^2*m + b^2*d^2)*n^2 + 6*m^2 + 4*m + 1)*x*cos(b*d*n*log(x) + b*d*lo
g(c) + a*d)^2 + (24*b^4*d^4*n^4 + m^4 + 4*m^3 + 16*(b^2*d^2*m^2 + 2*b^2*d^2
*m + b^2*d^2)*n^2 + 6*m^2 + 4*m + 1)*x)*e^(m*log(e) + m*log(x)))/(m^5 + 64*
(b^4*d^4*m + b^4*d^4)*n^4 + 5*m^4 + 10*m^3 + 20*(b^2*d^2*m^3 + 3*b^2*d^2*m^
2 + 3*b^2*d^2*m + b^2*d^2)*n^2 + 10*m^2 + 5*m + 1)
```

Sympy [F]

$$\int (ex)^m \sin^4\left(d(a+b\log\left(cx^n\right))\right)\,dx =$$

$$-\frac{\begin{cases} \frac{\log(x)\cos(2ad)}{e} & \text{for } b=0 \wedge m=-1 \\ \int (ex)^m \cos\left(-2ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i(m+1)}{2dn} \\ \int (ex)^m \cos\left(2ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i(m+1)}{2dn} \\ \frac{2bdnx(ex)^m\sin(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1}+\frac{mx(ex)^m\cos(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1}+\frac{x(ex)^m\cos(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}}{2}$$

$$+\frac{\begin{cases} \frac{\log(x)\cos(4ad)}{e} & \text{for } b=0 \wedge m=-1 \\ \int (ex)^m \cos\left(-4ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i(m+1)}{4dn} \\ \int (ex)^m \cos\left(4ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i(m+1)}{4dn} \\ \frac{4bdnx(ex)^m\sin(4ad+4bd\log(cx^n))}{16b^2d^2n^2+m^2+2m+1}+\frac{mx(ex)^m\cos(4ad+4bd\log(cx^n))}{16b^2d^2n^2+m^2+2m+1}+\frac{x(ex)^m\cos(4ad+4bd\log(cx^n))}{16b^2d^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}}{8}$$

$$+\frac{3\left(\begin{cases} \frac{(ex)^{m+1}}{m+1} & \text{for } m\neq -1 \\ \log(ex) & \text{otherwise} \end{cases}\right)}{8e}$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**4,x)
```

```
[Out] -Piecewise((log(x)*cos(2*a*d)/e, Eq(b, 0) & Eq(m, -1)), (Integral((e*x)**m*
cos(-2*a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/(2*
d*n))), (Integral((e*x)**m*cos(2*a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n)
, x), Eq(b, I*(m + 1)/(2*d*n))), (2*b*d*n*x*(e*x)**m*sin(2*a*d + 2*b*d*log(
c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1) + m*x*(e*x)**m*cos(2*a*d + 2*b
*d*log(c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1) + x*(e*x)**m*cos(2*a*d
+ 2*b*d*log(c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1), True))/2 + Piecew
ise((log(x)*cos(4*a*d)/e, Eq(b, 0) & Eq(m, -1)), (Integral((e*x)**m*cos(-4*
a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/(4*d*n))),
 (Integral((e*x)**m*cos(4*a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), E
q(b, I*(m + 1)/(4*d*n))), (4*b*d*n*x*(e*x)**m*sin(4*a*d + 4*b*d*log(c*x**n)
)/(16*b**2*d**2*n**2 + m**2 + 2*m + 1) + m*x*(e*x)**m*cos(4*a*d + 4*b*d*log
(c*x**n))/(16*b**2*d**2*n**2 + m**2 + 2*m + 1) + x*(e*x)**m*cos(4*a*d + 4*b
*d*log(c*x**n))/(16*b**2*d**2*n**2 + m**2 + 2*m + 1), True))/8 + 3*Piecewis
e(((e*x)**(m + 1)/(m + 1), Ne(m, -1)), (log(e*x), True))/(8*e)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 16932 vs. 2(337) = 674.

Time = 0.94 (sec) , antiderivative size = 16932, normalized size of antiderivative = 50.24

$$\int (ex)^m \sin^4\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^4,x, algorithm="maxima")
```

```
[Out] 1/16*(((((cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c))
+ (cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*
b*d*log(c)) + cos(4*b*d*log(c))*cos(4*a*d) - ((cos(4*a*d)*sin(8*a*d) - cos(
8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*
sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) - sin(4*b*d*log(c))*sin(4*
a*d))*e^m*m^4 + 4*(((cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*b
*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(
c)))*cos(8*b*d*log(c)) + cos(4*b*d*log(c))*cos(4*a*d) - ((cos(4*a*d)*sin(8*
a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d) +
sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) - sin(4*b*d*log
(c))*sin(4*a*d))*e^m*m^3 + 6*(((cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*
d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin
(4*b*d*log(c)))*cos(8*b*d*log(c)) + cos(4*b*d*log(c))*cos(4*a*d) - ((cos(4*
a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*co
s(4*a*d) + sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) - si
n(4*b*d*log(c))*sin(4*a*d))*e^m*m^2 + 16*((b^3*d^3*cos(4*a*d)*sin(4*b*d*log
(c)) + b^3*d^3*cos(4*b*d*log(c))*sin(4*a*d) + ((b^3*d^3*cos(4*a*d)*sin(8*a*
d) - b^3*d^3*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*d^3*cos(8*a*d)
*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*l
og(c)) + ((b^3*d^3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*c
os(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(8*a*d) - b^3*d^3*cos(8*a*d)*sin(
4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m + (b^3*d^3*cos(4*a*d)*s
in(4*b*d*log(c)) + b^3*d^3*cos(4*b*d*log(c))*sin(4*a*d) + ((b^3*d^3*cos(4*a
*d)*sin(8*a*d) - b^3*d^3*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*d^
3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))
*cos(8*b*d*log(c)) + ((b^3*d^3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*s
in(4*a*d))*cos(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(8*a*d) - b^3*d^3*cos
(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m)*n^3 + 4*(((c
os(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*
d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c))
 + cos(4*b*d*log(c))*cos(4*a*d) - ((cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(
4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))
*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) - sin(4*b*d*log(c))*sin(4*a*d))*e^m*m
 + 4*((b^2*d^2*cos(4*b*d*log(c))*cos(4*a*d) - b^2*d^2*sin(4*b*d*log(c))*sin
(4*a*d) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*
```

```
cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*sin
(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b^2*d^2*cos(4*a*d)*sin(8*
a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^2*d^2*cos(8*a*
d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d
*log(c)))*e^m*m^2 + 2*(b^2*d^2*cos(4*b*d*log(c))*cos(4*a*d) - b^2*d^2*sin(4
*b*d*log(c))*sin(4*a*d) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a
*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*d^
2*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b^2*d^2*c
os(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (
b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*sin(8*b*d*log(c)))*e^m*m + (b^2*d^2*cos(4*b*d*log(c))*cos(4*a*d) - b
^2*d^2*sin(4*b*d*log(c))*sin(4*a*d) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2
*d^2*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8*a
*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) -
 ((b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*d
*log(c)) - (b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*
sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m)*n^2 + (((cos(8*a*d)*cos(4*a*d) +
 sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos(8*
a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + cos(4*b*d*log(c))*c
os(4*a*d) - ((cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(
c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*si
n(8*b*d*log(c)) - sin(4*b*d*log(c))*sin(4*a*d))*e^m + 4*((b*d*cos(4*a*d)*si
n(4*b*d*log(c)) + b*d*cos(4*b*d*log(c))*sin(4*a*d) + ((b*d*cos(4*a*d)*sin(8
*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(
4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) +
((b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c))
+ (b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c))
)*sin(8*b*d*log(c)))*e^m*m^3 + 3*(b*d*cos(4*a*d)*sin(4*b*d*log(c)) + b*d*co
s(4*b*d*log(c))*sin(4*a*d) + ((b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*s
in(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*
sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + ((b*d*cos(8*a*d)*cos(4*a
*d) + b*d*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(8*
a*d) - b*d*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m
*m^2 + 3*(b*d*cos(4*a*d)*sin(4*b*d*log(c)) + b*d*cos(4*b*d*log(c))*sin(4*a*
d) + ((b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log
(c)) - (b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*cos(8*b*d*log(c)) + ((b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin
(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*si
n(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m + (b*d*cos(4*a*d)*sin
(4*b*d*log(c)) + b*d*cos(4*b*d*log(c))*sin(4*a*d) + ((b*d*cos(4*a*d)*sin(8*
a*d) - b*d*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(4
*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + (
(b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) +
 (b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))
*sin(8*b*d*log(c)))*e^m)*n)*x*x^m*cos(4*b*d*log(x^n)) - 4*((((cos(6*a*d)*co
```

s(4*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d
) - cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(4*a
*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin
(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((c
os(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(6*a*
d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c))
 - ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (co
s(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*l
og(c)))*e^m*m^4 + 4*(((cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4
*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*cos(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))
*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*
b*d*log(c)))*cos(4*b*d*log(c)) - ((cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4
*a*d))*cos(4*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*
sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)
*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*
a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^3 + 6*(((cos(6*a*d)*cos(4
*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) -
 cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(4*a*d)
*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*
a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((cos(
4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(6*a*d)*
cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) -
((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4
*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(
c)))*e^m*m^2 + 32*((((b^3*d^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*si
n(4*a*d))*cos(4*b*d*log(c)) - (b^3*d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*sin(
6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^3*d^3*cos(2*a
*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^3*d^
3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))
*cos(4*b*d*log(c)) + ((b^3*d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*sin(6*a*d)*s
in(4*a*d))*cos(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos
(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((b^3*d^3*cos(4*
a*d)*cos(2*a*d) + b^3*d^3*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^3*d
^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c))
)*sin(4*b*d*log(c)))*e^m*m + (((b^3*d^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos
(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*d^3*cos(6*a*d)*cos(4*a*d) + b^
3*d^3*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^3*d
^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c))
 - (b^3*d^3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*sin(4*a*d)*sin(2*a*d))*sin(2*b*
d*log(c)))*cos(4*b*d*log(c)) + ((b^3*d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*si
n(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(6*a*d) - b
^3*d^3*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((b^3*
d^3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)
) + (b^3*d^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(2*a*d))*sin(2*b

*d*log(c)))*sin(4*b*d*log(c)))*e^m)*n^3 + 4*(((cos(6*a*d)*cos(4*a*d) + sin(
6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*
sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d)
+ sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4
*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((cos(4*a*d)*sin(6
*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d) +
sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((cos(2*a*d)
*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*
a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m +
16*((((b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*cos(
4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a
*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^2*d^2*cos(4*a*d)*cos(2*a*d)
+ b^2*d^2*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^2*cos(2*a*d)*s
in(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log
(c)) - ((b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*cos
(4*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*
a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((b^2*d^2*cos(2*a*d)*sin(4*a*d
) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*
cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*lo
g(c)))*e^m*m^2 + 2*(((b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*si
n(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(
6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^2*d^2*cos(4*a
*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^
2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))
*cos(4*b*d*log(c)) - ((b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*s
in(4*a*d))*cos(4*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin
(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((b^2*d^2*cos(2*
a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d
^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c))
)*sin(4*b*d*log(c)))*e^m*m + (((b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin
(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^
2*d^2*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^2*d
^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c))
+ (b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*sin(2*b*
d*log(c)))*cos(4*b*d*log(c)) - ((b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*co
s(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*cos(4*a*d) + b
^2*d^2*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((b^2*
d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)
) - (b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*sin(2*b
*d*log(c)))*sin(4*b*d*log(c)))*e^m)*n^2 + (((cos(6*a*d)*cos(4*a*d) + sin(6*
a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*si
n(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) +
sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a
*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((cos(4*a*d)*sin(6*a
*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d) + s

in(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((cos(2*a*d)*s
in(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*
d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m + 2*(
(((b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c))
 - (b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)
))*cos(6*b*d*log(c)) + ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a
*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*
a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(6*a*d)*cos(4*a*d) +
b*d*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) -
 b*d*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((b*d*co
s(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*c
os(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*
b*d*log(c)))*e^m*m^3 + 3*(((b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(
4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin
(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(2*a*d)*sin(4*a*d)
 - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d
) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d
*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*
d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin
(6*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*c
os(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*
sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^2 + 3*(((b*d*cos(4*a*d)*sin(6*a
*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(6*a*d)*cos(4*
a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((
b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) -
(b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*
cos(4*b*d*log(c)) + ((b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d)
)*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d
))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d
*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*
d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m + (((b
*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (
b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*c
os(6*b*d*log(c)) + ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))
*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d)
)*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(6*a*d)*cos(4*a*d) + b*d*
sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) - b*d
*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((b*d*cos(4*
a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2
*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*
log(c)))*e^m)*n)*x*x^m*cos(2*b*d*log(x^n)) - ((((cos(4*a*d)*sin(8*a*d) - co
s(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d
)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + ((cos(8*a*d)*cos(4*a*d
) + sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos
(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) + cos(4*a*d)*sin(4

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*b*d*log(c)) + cos(4*b*d*log(c))*sin(4*a*d))*e^m*m^4 + 4*(((cos(4*a*d)*sin(
8*a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d)
+ sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + ((cos(8*a*d
)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(8
*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) + cos(4
*a*d)*sin(4*b*d*log(c)) + cos(4*b*d*log(c))*sin(4*a*d))*e^m*m^3 + 6*(((cos(
4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*
cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) +
((cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4
*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(
c)) + cos(4*a*d)*sin(4*b*d*log(c)) + cos(4*b*d*log(c))*sin(4*a*d))*e^m*m^2
- 16*((b^3*d^3*cos(4*b*d*log(c))*cos(4*a*d) - b^3*d^3*sin(4*b*d*log(c))*sin
(4*a*d) + ((b^3*d^3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*
cos(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(8*a*d) - b^3*d^3*cos(8*a*d)*sin
(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b^3*d^3*cos(4*a*d)*sin(8*
a*d) - b^3*d^3*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*d^3*cos(8*a*
d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d
*log(c)))*e^m*m + (b^3*d^3*cos(4*b*d*log(c))*cos(4*a*d) - b^3*d^3*sin(4*b*d
*log(c))*sin(4*a*d) + ((b^3*d^3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*
sin(4*a*d))*cos(4*b*d*log(c)) + (b^3*d^3*cos(4*a*d)*sin(8*a*d) - b^3*d^3*co
s(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b^3*d^3*cos(4
*a*d)*sin(8*a*d) - b^3*d^3*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*
d^3*cos(8*a*d)*cos(4*a*d) + b^3*d^3*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)
))*sin(8*b*d*log(c)))*e^m)*n^3 + 4*(((cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*si
n(4*a*d))*cos(4*b*d*log(c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d
))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + ((cos(8*a*d)*cos(4*a*d) + sin(8*a
*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin
(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)) + cos(4*a*d)*sin(4*b*d*log(c)
) + cos(4*b*d*log(c))*sin(4*a*d))*e^m*m + 4*((b^2*d^2*cos(4*a*d)*sin(4*b*d*
log(c)) + b^2*d^2*cos(4*b*d*log(c))*sin(4*a*d) + ((b^2*d^2*cos(4*a*d)*sin(8
*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^2*d^2*cos(8*a
*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*
d*log(c)) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d)
)*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*s
in(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m^2 + 2*(b^2*d^2*cos(4
*a*d)*sin(4*b*d*log(c)) + b^2*d^2*cos(4*b*d*log(c))*sin(4*a*d) + ((b^2*d^2*
cos(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) -
(b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*l
og(c)))*cos(8*b*d*log(c)) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8
*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*
d^2*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m + (b
^2*d^2*cos(4*a*d)*sin(4*b*d*log(c)) + b^2*d^2*cos(4*b*d*log(c))*sin(4*a*d)
+ ((b^2*d^2*cos(4*a*d)*sin(8*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*cos(4*b*
d*log(c)) - (b^2*d^2*cos(8*a*d)*cos(4*a*d) + b^2*d^2*sin(8*a*d)*sin(4*a*d))
*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) + ((b^2*d^2*cos(8*a*d)*cos(4*a*d) + b
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^2*d^2*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)*sin(8
*a*d) - b^2*d^2*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c))
)*e^m)*n^2 + (((cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*cos(4*b*d*lo
g(c)) - (cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*
cos(8*b*d*log(c)) + ((cos(8*a*d)*cos(4*a*d) + sin(8*a*d)*sin(4*a*d))*cos(4*
b*d*log(c)) + (cos(4*a*d)*sin(8*a*d) - cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log
(c)))*sin(8*b*d*log(c)) + cos(4*a*d)*sin(4*b*d*log(c)) + cos(4*b*d*log(c))*
sin(4*a*d))*e^m - 4*((b*d*cos(4*b*d*log(c))*cos(4*a*d) - b*d*sin(4*b*d*log(
c))*sin(4*a*d) + ((b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*c
os(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*
sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b*d*cos(4*a*d)*sin(8*a*d) - b*d*co
s(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(4*a*d) + b*d*s
in(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m^3 + 3*(b*
d*cos(4*b*d*log(c))*cos(4*a*d) - b*d*sin(4*b*d*log(c))*sin(4*a*d) + ((b*d*c
os(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*
cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8
*b*d*log(c)) - ((b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*cos
(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*si
n(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m*m^2 + 3*(b*d*cos(4*b*d*log(c))*cos(
4*a*d) - b*d*sin(4*b*d*log(c))*sin(4*a*d) + ((b*d*cos(8*a*d)*cos(4*a*d) + b
*d*sin(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(8*a*d) -
b*d*cos(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b*d*cos
(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*co
s(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b
*d*log(c)))*e^m*m + (b*d*cos(4*b*d*log(c))*cos(4*a*d) - b*d*sin(4*b*d*log(c
))*sin(4*a*d) + ((b*d*cos(8*a*d)*cos(4*a*d) + b*d*sin(8*a*d)*sin(4*a*d))*co
s(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos(8*a*d)*sin(4*a*d))*s
in(4*b*d*log(c)))*cos(8*b*d*log(c)) - ((b*d*cos(4*a*d)*sin(8*a*d) - b*d*cos
(8*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(8*a*d)*cos(4*a*d) + b*d*si
n(8*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(8*b*d*log(c)))*e^m)*n)*x*x^m*si
n(4*b*d*log(x^n)) + 4*((((cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*co
s(4*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d
*log(c)))*cos(6*b*d*log(c)) + ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*
d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin
(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*si
n(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d
))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a
*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin
(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^4 + 4*(((cos(4*a*d)*si
n(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d
) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(2*a
*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos
(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((c
os(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (cos(4*a*
d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c))

+ ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (co
s(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*l
og(c)))*e^m*m^3 + 6*(((cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4
*b*d*log(c)) - (cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*cos(6*b*d*log(c)) + ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))
*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*
b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4
*a*d))*cos(4*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*
sin(4*b*d*log(c)))*sin(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)
*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*
a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^2 - 32*((((b^3*d^3*cos(6*
a*d)*cos(4*a*d) + b^3*d^3*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^3*d
^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c))
)*cos(6*b*d*log(c)) + ((b^3*d^3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*sin(4*a*d)*
sin(2*a*d))*cos(2*b*d*log(c)) + (b^3*d^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*co
s(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((b^3*d^3*cos(4
*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^3*
d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)
))*sin(6*b*d*log(c)) - ((b^3*d^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)
*sin(2*a*d))*cos(2*b*d*log(c)) - (b^3*d^3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*s
in(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m + (((b^3*
d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)
) + (b^3*d^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(4*a*d))*sin(4*b
*d*log(c)))*cos(6*b*d*log(c)) + ((b^3*d^3*cos(4*a*d)*cos(2*a*d) + b^3*d^3*s
in(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^3*d^3*cos(2*a*d)*sin(4*a*d) -
b^3*d^3*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((b^3
*d^3*cos(4*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c
)) - (b^3*d^3*cos(6*a*d)*cos(4*a*d) + b^3*d^3*sin(6*a*d)*sin(4*a*d))*sin(4*
b*d*log(c)))*sin(6*b*d*log(c)) - ((b^3*d^3*cos(2*a*d)*sin(4*a*d) - b^3*d^3*
cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^3*d^3*cos(4*a*d)*cos(2*a*d) +
b^3*d^3*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m)*
n^3 + 4*(((cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c))
- (cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6
*b*d*log(c)) + ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*l
og(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))
*cos(4*b*d*log(c)) + ((cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4
*b*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*sin(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))
*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*
b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m + 16*((((b^2*d^2*cos(4*a*d)*sin(6*a*d
) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*
cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*lo
g(c)) + ((b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(2*a*d))*co
s(2*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2
*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(6*a*d)*cos(4*a*

d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*d^2*cos(4*a*d)
*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*l
og(c)) + ((b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)*sin(2*a*d))*c
os(2*b*d*log(c)) + (b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(
2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^2 + 2*(((b^2*d^2*cos(4*
a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b^2*d
^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c))
)*cos(6*b*d*log(c)) + ((b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*
sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*si
n(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(6
*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b^2*
d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)
))*sin(6*b*d*log(c)) + ((b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*sin(4*a*d)
*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*c
os(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m + (((b^2*
d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)
) - (b^2*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*sin(4*b
*d*log(c)))*cos(6*b*d*log(c)) + ((b^2*d^2*cos(2*a*d)*sin(4*a*d) - b^2*d^2*c
os(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(2*a*d) +
b^2*d^2*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2
*d^2*cos(6*a*d)*cos(4*a*d) + b^2*d^2*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c
)) + (b^2*d^2*cos(4*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(4*a*d))*sin(4*
b*d*log(c)))*sin(6*b*d*log(c)) + ((b^2*d^2*cos(4*a*d)*cos(2*a*d) + b^2*d^2*
sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^2*cos(2*a*d)*sin(4*a*d) -
 b^2*d^2*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m)*
n^2 + (((cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) -
 (cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b
*d*log(c)) + ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log
(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*c
os(4*b*d*log(c)) + ((cos(6*a*d)*cos(4*a*d) + sin(6*a*d)*sin(4*a*d))*cos(4*b
*d*log(c)) + (cos(4*a*d)*sin(6*a*d) - cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(
c)))*sin(6*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*c
os(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*
d*log(c)))*sin(4*b*d*log(c)))*e^m - 2*((((b*d*cos(6*a*d)*cos(4*a*d) + b*d*s
in(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) - b*d*
cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(4*a
*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*
a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*l
og(c)) - ((b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d
*log(c)) - (b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*
d*log(c)))*sin(6*b*d*log(c)) - ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)
*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d
)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*m^3 + 3*(((b*d*cos(
6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos
(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*

d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*
b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2
*b*d*log(c)))*cos(4*b*d*log(c)) - ((b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a
*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*
a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(c)) - ((b*d*cos(2*a*d)*si
n(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*c
os(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c))
)*e^m*m^2 + 3*(((b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*cos
(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*si
n(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(
4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos
(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((b*d*cos(4*a*d)
*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) - (b*d*cos(6*a*d
)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*sin(6*b*d*log(
c)) - ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*lo
g(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*l
og(c)))*sin(4*b*d*log(c)))*e^m*m + (((b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6
*a*d)*sin(4*a*d))*cos(4*b*d*log(c)) + (b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(
6*a*d)*sin(4*a*d))*sin(4*b*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(4*a*d)*
cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)
*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c
)) - ((b*d*cos(4*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(4*a*d))*cos(4*b*d*log
(c)) - (b*d*cos(6*a*d)*cos(4*a*d) + b*d*sin(6*a*d)*sin(4*a*d))*sin(4*b*d*lo
g(c)))*sin(6*b*d*log(c)) - ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin
(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*si
n(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m)*n)*x*x^m*sin(2*b*d*log
(x^n)) + 6*(((cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d
)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*e^m*m^4 + 64*((b^4*d^4*cos(4*a*d)^
2 + b^4*d^4*sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (b^4*d^4*cos(4*a*d)^2 + b^4
*d^4*sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*e^m*n^4 + 4*((cos(4*a*d)^2 + sin(4*
a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c
))^2)*e^m*m^3 + 6*((cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos
(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*e^m*m^2 + 4*((cos(4*a*d)^2 +
sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*
d*log(c))^2)*e^m*m + 20*(((b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*cos
(4*b*d*log(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*sin(4*b*d*
log(c))^2)*e^m*m^2 + 2*((b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*cos(4
*b*d*log(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*sin(4*b*d*lo
g(c))^2)*e^m*m + ((b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*cos(4*b*d*l
og(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*sin(4*b*d*log(c))^
2)*e^m)*n^2 + ((cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a
*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*e^m)*x*x^m)/(((cos(4*a*d)^2 + si
n(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*l
og(c))^2)*m^5 + 5*((cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos
(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*m^4 + 64*((b^4*d^4*cos(4*a*d

```
)^2 + b^4*d^4*sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (b^4*d^4*cos(4*a*d)^2 + b
^4*d^4*sin(4*a*d)^2)*sin(4*b*d*log(c))^2 + ((b^4*d^4*cos(4*a*d)^2 + b^4*d^4
*sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (b^4*d^4*cos(4*a*d)^2 + b^4*d^4*sin(4*
a*d)^2)*sin(4*b*d*log(c))^2)*m)*n^4 + 10*((cos(4*a*d)^2 + sin(4*a*d)^2)*cos
(4*b*d*log(c))^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*m^3 +
 10*((cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d)^2 + si
n(4*a*d)^2)*sin(4*b*d*log(c))^2)*m^2 + 20*(((b^2*d^2*cos(4*a*d)^2 + b^2*d^2
*sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*
a*d)^2)*sin(4*b*d*log(c))^2)*m^3 + 3*((b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4
*a*d)^2)*cos(4*b*d*log(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2
)*sin(4*b*d*log(c))^2)*m^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*
cos(4*b*d*log(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*sin(4*b
*d*log(c))^2 + 3*((b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*cos(4*b*d*l
og(c))^2 + (b^2*d^2*cos(4*a*d)^2 + b^2*d^2*sin(4*a*d)^2)*sin(4*b*d*log(c))^
2)*m)*n^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*cos(4*b*d*log(c))^2 + (cos(4*a*d)
^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2 + 5*((cos(4*a*d)^2 + sin(4*a*d)^2)*c
os(4*b*d*log(c))^2 + (cos(4*a*d)^2 + sin(4*a*d)^2)*sin(4*b*d*log(c))^2)*m)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 706991 vs. $2(337) = 674$.

Time = 20.10 (sec) , antiderivative size = 706991, normalized size of antiderivative = 2097.90

$$\int (ex)^m \sin^4(d(a+b\log(cx^n)))\,dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^4,x, algorithm="giac")
```

```
[Out] -1/16*(384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 384*(a
bs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^
m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
- 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
```

1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^

2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 384*(abs(e
)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n
^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 384*(abs(e)
*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256
*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2

```
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 384*(abs(e
)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 3
84*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 384*(abs(e)*abs(x
))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*
b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b
^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 384*
(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 38
4*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b
^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
```

loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)
^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32
*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*
b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120
*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a

bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 -
64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4
*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3
*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^
3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s

gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d
^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^
3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2*tan(a*d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(

c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*m
*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 32*b^3*d^3*m*n^3
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 2
56*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))

)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 128*b^3*d^3*
m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 128*b^3*d^3*m*
n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^
3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*

```
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 2
56*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3
*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*
tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
```

```
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^
3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d
)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^
3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^
3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
```

d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 3
2*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b
^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b

```
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*
n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 384*(abs(e)*abs(x))^m*b
^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 384*(abs(
e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 2
56*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
```

1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*
n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*
n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*
x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b
^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*

pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*n^3*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(

```
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^
3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)
+ 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256
*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 384*(ab
s(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
```

b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b
^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*

b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b
^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 128*b^
3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 128*b^3*d^
3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^
2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m
^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3
*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*t
an(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d
^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*
d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 384*(
abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(2*a*d)^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 384*(abs(e)*abs(
x))^m*b^4*d^4*n^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m

*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d
^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs
(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2
*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s

gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b^2*d^2
*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b^2*d^
2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 384*(ab
s(e)*abs(x))^m*b^4*d^4*n^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*
d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi

*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*
d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))
^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 25
6*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan

```
(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^
3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*
n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
```

1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 128*b^3*
d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 128*b^3*d^3*m*n^3*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*m*n^3*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 256*b^3*d^
3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*
b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
+ 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*

log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4 *sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 *tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab s(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*p i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2 *b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log (abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d* log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi* b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m* log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi* m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b ^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2* tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2 *a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d *log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn (e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b *d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b* d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn (x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn (e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi *b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m *log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/ 4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^ 2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3* d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi* m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) -

2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b
^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3
*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3
*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 10
24*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 1024*b^3*d^3*m*n^3*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d
^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo

```
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3
*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 2
56*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 256*
b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^
3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*
m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*
d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
```

(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1024
*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) -
256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 25
6*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)

- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*m*n^3
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^

2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x

```
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 -
 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^
2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*
```

```
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)
^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 128*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*
tan(a*d)^2 + 128*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 128*b^3*
d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)*tan(a*d)^2 + 128*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3
*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
```

m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^
2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*
tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(
a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b
^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^
2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d
*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3
*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 256*b^3*d^3*
m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n
^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*

n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d
^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 -
256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2
*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2
*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b

*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^
3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*
m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 3
2*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n
^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d
)^2 - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 51
2*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^2*d^
2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))

```
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^2*d^2
*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*
n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3
*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d
^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 240*(a
bs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
```

abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*
n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*
m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x

) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 384*(abs(
e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^

3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor

```
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d) + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 1
6*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^3*d^3
*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
```

(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
- 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^
2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 384*(abs(e)*abs(x)
)^m*b^4*d^4*n^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)
^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d)^2 + 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn

(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b
^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^
2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 2
56*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m

*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b^2*d^
2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b^2*d^2*m^2*n^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e

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) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^
4*n^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32
*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b
^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*
b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
```

+ 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn

(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^
2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d
^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 1024*b^3*d^3
*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1

/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256
*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^3*d^3*n^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*
b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x

```
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)
- 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) -
 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b
^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
```

pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1024*b^3*d
^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*
d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*
d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a

bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3
*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2
*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*
d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 384*(abs(
e)*abs(x))^m*b^4*d^4*n^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 256*b^3*d^3*n^3
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +

1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 256*b^3*d^3*n
^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3
*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 3
2*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^
3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d
^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*

n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*
d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b^2*d^2*m^2*

n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

```
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*
m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(e)*ab
s(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
```

*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(ab
s(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
- 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3
*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d
^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^
3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*

m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(

x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2
*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b
^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*ta
n(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d
^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)

+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan
(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*
d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)
^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
- 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 -
384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n
^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)

```
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x
))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m
^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b
^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b
^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b
^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)
^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^
2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^
2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3
```

*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d
^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(
abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*
b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*

b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
- 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 -
16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e

) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b
^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b
^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a
*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 1
6*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b
^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d
*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^

2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^
2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(
e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(

x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2
*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(ab
s(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p

i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*
b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^
2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(

abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x)

- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)

- 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*

pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^
3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 128*b^3*d^3*m*n^3*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo

g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d) + 128*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 128*b^3*d^3*m*n^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 1
28*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d) - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b
^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32
*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) +
 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 3
2*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32
*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n

*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*
d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p

i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^
2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 25
6*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3
*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*
b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b
^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)

- 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n

*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2
*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
+ 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2

- 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*
m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d
*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))

```
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*
d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 512
*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
```

1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*m*n^
3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 256
*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m

```
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 512*b^2
*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*
d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
- 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
```

*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
*tan(a*d) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 51
2*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 25
6*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*m
^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^

2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) +
 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 256*b
^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)

- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2
*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*
m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 128*b^
2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*
d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 +
 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2
+ 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a

bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 25
6*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m
*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*
m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^
2 - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 512*b^2*d^2*m*n^2
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b

*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)

+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*
m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*
m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*m^3*
n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*

pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*
b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8
*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2
*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*
tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2
*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*t
an(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +

m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 1
28*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(
a*d)^2 + 128*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 3
2*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan
(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2
*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)*tan(a*d)^2 - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)*tan(a*d)^2 + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(
a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg

n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b
^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^
2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^
3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*
b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t

an(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*t
an(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*
abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^
2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 128
*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 128*
b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^
2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2
+ 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d

*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d
^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3
*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4

*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*

pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 -
 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d)^2*tan(a*d)^2 - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*
d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s

```
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 -
48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2
*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 12
8*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 1
6*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m
*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*
m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
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e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +

1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))

*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 - 384*(abs(e)*abs(x))^m*b^4*
d^4*n^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 384*(abs(e)*abs(x))^
m*b^4*d^4*n^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta

n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +

pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b^2*d^2*m^
2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m
^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +

m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n
^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*
d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4
*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn

```
(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b
^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) +
32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
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i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*b^2*d^2*m^2
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d) + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d) - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^2*n^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d

) - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*
n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p

i*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*

tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32
*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2
*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^
2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2
*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*

sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
+ 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*b^3*d^3*n
^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*
n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m

*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b^
2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b
^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/

4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b
*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))

)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 -
32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
- 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
- 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 120*(ab
s(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d
^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2
*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m
^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(

abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 120*(abs(e)*abs
(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*
b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b
^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2
*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*
b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(a
bs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*

n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n
^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*
n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^
2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1

/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn

(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) +
1024*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d) - 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2
*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*m
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) -
256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d) + 1024*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d) - 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) +

```
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256
*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*
n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*
d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
```

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*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^
3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*
tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*ta
n(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^
2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
```

^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 25
6*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 1024*b^3*d^3
*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1024*b^3*d^3*n^
3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2
*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*
n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)

))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d
) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n
^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*
d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 2
56*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 1
6*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e

^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m
^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*
d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -

```
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*m^4*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^
2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d
*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 384*(abs(e)*abs(x))^
m*b^4*d^4*n^4*x*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 32*b^3
*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d
^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
```

pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)
^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*
d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(
e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6
4*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*

sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s

gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b^2*d^
2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*
d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2

*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^
2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^
2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 120*(abs(e)*
abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b
^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log

(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^
2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b
^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2
*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)

- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c

```
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^
4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d
^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*
d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*n
^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b
^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
```

)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 +
24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 128*b^3*d^3*n^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^
2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b
^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan
(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d
)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg

```
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 96*b*d*m
^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m^2*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
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*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^
3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^
2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d
*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 -
 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
```

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sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^
3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2
*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
```

(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m

*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2
*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d
^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 1
20*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2
*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e

)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
+ 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)

- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))

^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*t
an(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 +
 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*
n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 -
4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t

an(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*

d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^
4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2
*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*
d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*

n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a

*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*

b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 32*b^3*d^3*m*n^3
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*
b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*m*n^3*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24
0*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*
b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 1
28*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^
2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*
m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d
^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s

gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*
b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^2*d^2*m*

n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*
m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^
2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))

+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 240*(abs(e)*abs(x))^m*b^2*
d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n

^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^
2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m
^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) - 32*b^3*d^3*
m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e

^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 128*b^
3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 128*b^3
*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^2*
d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d) + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^2*d^2*m*
n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
) - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*m^3*n*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(

abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 3
2*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32
*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^2*
d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(

c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 32*b^
3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^m*b^2
*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*
a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^
2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(

```
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*m^3*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*
b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 3
2*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b
```

*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 512*b^2*d
^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b
^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b
*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*b^2*d^2*m*n^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*

n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 512*b^2*d^2*m*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 512*b^
2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -

1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^
2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
- 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*

```
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
- 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b^2*
d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*
d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
```

+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) + 25
6*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn

(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) + 1024*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) - 1024*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 512*
b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 512*b^2*d^
2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) -
 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*b*d*m^3*n*x*

e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^3*d^3*m*n^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^
3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16
*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x

)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg

n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*
d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*b*d*m^
3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 512
*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 512
*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 51
2*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1

/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))

+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b
*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 32*b^3*d^3*m*n^3*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 -

32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 240*(abs(e)*abs(x)

)^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*
n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*m
*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a
*d)^2 - 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 512*b^2*d^2*m*n^
2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -

2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*m^3*n*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 32*b^2
*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 512*b^2*d^2*m*
n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*

m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 512*b^2
*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 +
8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128
*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*
m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^
m*b^2*d^2*m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
+ 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)

```
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*m^3*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*
```

d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*ta
n(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3

*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3
*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 +
 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*t
an(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*t
an(a*d)^2 + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/

4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b*d*m^3*n*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d
)^2 - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*
b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3
*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8
*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(

c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a
*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*t
an(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m
*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d
)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(
a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*

d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*t
an(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan
(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 8*
b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2
*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*ta
n(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2
*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))

*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)
^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo

r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 32*b^2*d^
2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
 - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi

*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log

(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d
)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 64*m^3*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m
*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*
d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^

2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab

s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^
3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b
*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^
3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*
d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*

pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 -
 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 -
16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 384*(abs(e)*abs(x))^m*b^4*d^4*n^4*x + 256*

b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c))) - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 32*b^3*d
^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 120*(abs(e)*abs(x))^m*b^2*d^2
*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b^2*d^2*m^
2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n
^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t

an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs
(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^
2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b
^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*

sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b
^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b^2*d^2*m^2*n^2*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^
3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floo

r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b^2*d^2*m^2*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b^2*
d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b^2*d^2*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p

```
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 32*b^3*d^3*n^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2
*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^
2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
```

- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b
^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*
b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2

*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^
2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120
*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4
*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1

/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^
3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 32*b^3*d^3*n^3
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d) + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 1
6*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 32*b^3*
d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^3*d^3*
n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*b^2*d^2*m^2
*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l

og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 128*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 128*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +

```
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b
^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m^2*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m^2*n*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
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4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^3*d^3*n^3*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo

or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^

```
m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2
 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2
 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*b^
2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*
d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
```

```
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e
)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e
```

^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 32*b^3*d^
3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d)^2 - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 32*b^3*d^3*n^
3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2 + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16
*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b

*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b
*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

```
 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2 - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b
*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
- 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 -
 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
```

(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*
n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*
b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*m^2*n^2
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^
2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))

*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*
m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 2
4*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4
*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log

(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x
))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s

```
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)
*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*
d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m
^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
```

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*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
```

(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 1024*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 1024*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(

e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t

an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b
*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l

og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^3*d^
3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)
- 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 256*b
^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*
n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*
n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(

-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*m
^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) -
16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*m
^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d
*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b

*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*

log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) -
16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) +
96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2*n^2*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*

pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1

```
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 32*b^3*d^3*n^3*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 32*b^
3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 64*b^2*
d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 256*b^3*d^3*n^3*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 256*b^
3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)
^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^2*d^2*m
^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^
2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d
)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^2*d^2*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*
```

d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^
2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*
n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*
m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*m
^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 120*(abs
(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n

```
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^3
*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
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abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d
)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d

*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*
b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m^4*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n

*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*m^
4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 -
 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 -
 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*m^
2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(

e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 120*(ab
s(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2
*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))

*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)

+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*

sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 36*(ab
s(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*
m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*t
an(a*d)^2 - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 +

16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2

*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*m^2
*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2
*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2
 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*
tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)*tan(a*d)^2 - 96*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*
b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)*tan(a*d)^2 - 96*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m^2*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4
*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32
*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b*d*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg

n(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d
*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 2
4*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)
^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2

*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
- 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*
x*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
a*d)^2*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)
^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2
*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(

x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*
d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d
)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b
*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))
^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*ta
n(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^
2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2
*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(
a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*

```
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2
 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x
))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4
*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
```

+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(
abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m
^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 36*
(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*

b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs (x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2 *pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log (abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b^2*d^2*n^2*x* e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*p i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b^2*d ^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) *tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi *b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta n(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*t an(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 *tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d* sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta n(2*a*d)^2*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi *b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2 *a*d)^2*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d* log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^4*x*e^(-pi*b* d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a *d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi* b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta

n(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(
a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d
*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/

4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*m
^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
- 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(
a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*

pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
+ 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))
^m*b^2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b
*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*

log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d
*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*

b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 + 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab

s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c))) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c))) + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c))) + 256*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c))) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 128
*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n

- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b
^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*
b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 240*(abs(e)*ab
s(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d
^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s

gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*m*n^3*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*
m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 3
2*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^2*d^2*
m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*m^3*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
+ 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b
^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)

+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d
*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b
*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^

2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b
^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 240*
(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x

)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m^3*
n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*
m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
- 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8
*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*
d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d

*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*m*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) - 32*b^3*d^3*m*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*

b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 8*b*d*
m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 32*b^2*d^2*m*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d
*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 2
4*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)

) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d) - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d) - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m*n*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16
*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 2
4*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b
*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +

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2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2
 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 128*b^2
*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b^2*d^2*m*n
^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*m^3*n*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*
m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e
```

)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*
m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 32*
b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 32*
b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*
b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*
d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*

pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*
m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m*n*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24
*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2

```
*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m^3*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2 - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 +
 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 -
 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 240*(abs(e)*abs(x))^
m*b^2*d^2*m*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
```

*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 128*b^2*d
^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -

pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x)
)^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(

e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 2
4*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*m*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 2
56*b^3*d^3*m*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*

d*log(abs(c)))*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b

*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
- 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*
d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 192*b*d*m*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m
^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b

*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
) + 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m
^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 6
4*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)

+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 16*
b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*b*d
*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*
d)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4

*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*
m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d) + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 512*b^2*d^2
*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)^2*tan(a*d) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*
tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x

```
) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*
m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(
a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*
d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
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gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 -
 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)

```
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^
2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 8*b
^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^
2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 240*(abs(
e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^
2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d
*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
```

gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d

*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^
2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*m
^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 512*b^2*d^2
*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 512*b^2*d^2*m*n^2*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8
*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*
n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi

*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4
8*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m^
3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi

*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m^3*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
+ 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b
*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*
m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*
n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4

*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*

pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 -
16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d

*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 32*b^2
*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2
*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2
 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*t
an(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)

```
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m
^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*m^3*n
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
```

*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^
2*x*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
a*d)^2*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^
2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 8*b^2*d^2*m
*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*ta
n(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(

c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(
a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 4
8*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*ab
s(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24
*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*

e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m
^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4

*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 8
*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*m^3*
n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 64*m^
3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d)^2*tan(a*d)^2 + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*
m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b
*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*
n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))

+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b

*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2*tan(a*d)^2 + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*
d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*
(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4
*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*
m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 48
*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(ab
s(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m
*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn

(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*ab
s(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
d)^2 + 24(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c))) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*

pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c))) - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 64*b^2*d^2*m^2*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 64*b^2*d
^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 +
 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c))) + 256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
log(abs(c))) - 120(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 120*(abs(e)*abs(x
))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b^2*d^2*n^
2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
- 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2
*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b

*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 48*
b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*ab
s(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi

*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^3*d^3*n^3*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^3*d^3*n^3*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 32*b^3*d
^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*
b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^2*d^2*m
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg

n(x) - 1/2*pi*m) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b^2*d^2*n^
2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*
b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b^2*d
^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*
b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c

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)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16
*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m^2*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m^2*
n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*m^4*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
```

b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 120*(abs
(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m^2*n^2
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2
*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d

```
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 120*(abs(e)*abs(x))^m*b^2*d^
2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^
2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*
n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
```

/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))
^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4

*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m
^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 36*(abs
(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*

m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^3*d^3*n^3*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*a*d) - 32*b^3*d^3*n^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) + 16*
b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(2*a*d) + 16*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d) + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2

```
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*m^
2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
) - 96*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
```

(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l

og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*n*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*b^2*d^2*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*b^2*d^2*n^2*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))

)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*
n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
+ 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi

*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 120*
(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*a*d)^2 + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d
)^2 + 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 4*b^2*d^2*m^2*n^2*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2
*a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 48*b*
d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 64*
b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2
*a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^4*x*e^(pi

```
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 12
0*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*
d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^
2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*m^
4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*
m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 48*b*d*m^2*n*
```

x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +

1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4 *pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*

log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^4*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m^4*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 96*m^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)^2 - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b
*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d

)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 2
4*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 120*(abs(e)*abs(x))^m*
b^2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 64*b^2*d^2*n^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c

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)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*
m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
```

24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4

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*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*a
bs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
```

4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 256*b^3*d^3*n^3*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) +
256*b^3*d^3*n^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 256*b^2*d^2*m^2*n^2*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 256*b^2
*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 48*b*d*m^2*n
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))

)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b
*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*m
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d) - 256*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d
^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 256*b^2*d^2*n^2*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a

bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*m^4*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*b*d*n*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c

) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*
d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) +
16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d
*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m

*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*
tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*

e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d
) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*
m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)
- 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^
2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*m^4*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi

*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 256*b^2*d^2
*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*b*d*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
- 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) +
16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab

s(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*b*d*n*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 1
6*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m^2*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^

2*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*t
an(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*
m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*
m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*

n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*
x*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 64*b^2
*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 64*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(a*d)^2 - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 120*(a
bs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d
^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 48*b*
d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2
*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 4*b^2*d^
2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d

)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log

(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 36*(abs(e)*abs
(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +

m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d)^2 - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
^2 + 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m^4*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) -

```
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 2
4*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*m^4*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*n*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b
*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d
*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
```

4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d
*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8
*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*
d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^
2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(

e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg

n(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*
d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +

```
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 36*(abs(e)*abs
(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24
*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24
*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6
*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
```

- 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 +
 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^
2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2
*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl

oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 +
4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
+ 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)*tan(a*d)^2 - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*b^2*d^2*
n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)*tan(a*d)^2 - 96*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x

) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 32*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 +
 32*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*
d)^2 - 32*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d)*tan(a*d)^2 + 32*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*m
^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo

g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*
a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m^2*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n

+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
- 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
- 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*a*d)^2*tan(a*d)^2 +
4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*
n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*a*d)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)
^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d

)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4
*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a
*d)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2
*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*ta
n(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 1
6*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*ab
s(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a
*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*
d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2
+ 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 36
*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(

x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))

+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo

g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
^2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
- 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
- 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b
*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 8*
b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*
m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)^2*tan(a*d)^2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(2*a*d)^2*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi

*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d)^2 + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - m^4*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*

d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x)
)^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan

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(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a
*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
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1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +

1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*m^3*n
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l

og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 512*b^2*d^2*m*n^2*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(-p

i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(2* pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s

gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*(abs(e)*abs(x))^m
*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d

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+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*
m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4
8*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))
^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
```

pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 32*b^2*d^2*
m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)
- 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(2*a*d) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*
b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4

*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 32*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m*n*x*e^(-2*pi*b*d*n*s gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a

bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m
*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
- 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 240*(abs(e)*abs(x))^
m*b^2*d^2*m*n^2*x*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*a*d)^2 + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 128*b^2*d^2*m*n
^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi

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*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 16*b*d*m^3*
n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 4
8*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^3*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(2*a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^
2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*b*d*m*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs
(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
```

pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*
abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(
x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs

(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2

- 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m^3
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m^3*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2
 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))

*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^
3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

2*pi*m)^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)

+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) + 16*b*
d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
a*d) - 512*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(a*d) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 16

*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b
*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 512*b^2*d^2*m*n
^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d
) - 512*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(a*d) + 64*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d
) - 64*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 192*b*d*m*n*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log

(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m^3*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a
*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d) - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg

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n(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) +
 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) +
```

48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan
(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 48*b*d*
m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*
tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
 + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 192*b
*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(

pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) +
 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)
- 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 6
4*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(
a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t

an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) +
64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 240*(abs(e)*abs(x))^m*b^2
*d^2*m*n^2*x*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2
- 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 128*b^2*d^2*m*n^2*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 8
*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d
)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 24*b*d*m*
n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^
3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +

```
b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 16*m^3*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
```

(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4* pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^

2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^

2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 1
6*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 1
6*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
d)^2 + 24(abs(e)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)

+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 -

16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2

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*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*
tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)
^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2
```

*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 +
24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m
^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*
m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 1
6*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(
a*d)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2
 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*ta
n(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)

))^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)
^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*ta
n(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs
(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan
(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d

+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a

*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(
a*d)^2 - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 +
64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 64*m*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d)^2 + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*
tan(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +

m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m

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)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*
d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*m^2*n^2*x - 4*b^2*
d^2*m^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x))) + 64*b^2*d^2*m^2*n^2*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 64
*b^2*d^2*m^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x))) - 4*b^2*d^2*m^2*n^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
) - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c))) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) - 120*(abs(e)*abs(x
))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*b^2*d^2*n
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b
^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 64*b
^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*b
^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 24*b*d*m^2*n*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(
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abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d

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*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b^2*d^2*n^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m^2*n*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 256*b^2*d^2*n^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m
^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
+ 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(-pi*b*d
```

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*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*
n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m^2*n*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
```

) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*
b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 1
6*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^4*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 96*m^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
- 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

2*pi*m) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab

s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*(abs(e)*abs(x
))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*
n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e
)*abs(x))^m*m^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)

- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)

))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^
2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*b^2*d
^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d

```
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(2*a*d) + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)
 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b
*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 8
*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 4*m^4*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(-2*pi*b*d*
```

n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d) - 16*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 96*b*d*m^
2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m^2*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) +
 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*
d) - 32*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*
m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo

g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*m^4*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b*d*n*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 3
2*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*b*d*m^
2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m

)^2*tan(2*a*d) + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8
*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 2
4*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)

- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a

*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2
 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 36*(abs(e)*a
bs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d
)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*m^4*x*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*
m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^4*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2

*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^
2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2

*tan(2*a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l

og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8
*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*m^2*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(2*a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*m^2*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*m^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2 + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d

+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*
m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*s

gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*x
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 + 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a
*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab

s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(a*d) - 256*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(a*d) - 256*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 48*b*d*m^2
*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 48*
b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*
d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) +
16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4

*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 1
6*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
- 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 256*b^2*d^2*n^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 256*b^2*d
^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 192*b*d*m^2*n*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(a*d) - 192*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))

+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*m^4*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))

+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d) + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 96*m^2*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) -

pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*a*d)^2*tan(a*d) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan
(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*m^4*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 9
6*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) +
 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*b*d
*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(

2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) -
16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d
)^2*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*ta
n(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64
*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 1
6*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 96
*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)

+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4 *pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b *d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(pi*b*d*n *sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1 /4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi *b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*b* d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m *sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d *n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1 /2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs (x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 *tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d* log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*n* sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))) *tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d *log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^ 2*tan(2*a*d)^2*tan(a*d) - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(a*d)^2 - 4*b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi* b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(pi*b* d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 64*b^2*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d* sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 4*b^2*d^2*n^2

```
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2
- 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 48*b*d*m^2*n*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 48*b*d*m^2*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 16*b*d*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 6*m^2*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x)
```

- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 6
*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^
m*m^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^4*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m
^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b

*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*b*d *n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi* m)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*lo g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))* tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4 *sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m* floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1 /2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d* log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^ 2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x *e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs (e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b* d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e ^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1 /4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d* n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b *d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))* tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d* log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d* n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48* b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)* tan(a*d)^2 - 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)

+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*n*x*
e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m^4*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)
^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*m^2*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab

s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 96*m^2*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 96*m^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d)^2 + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
 + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*x*e^(2*pi

*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s

gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(
x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(2*
pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 8*

b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 -
 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan
(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan
(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*ta
n(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*
d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*m^4*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)*tan(a*d)^2 - 32*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(2*a*d)*tan(a*d)^2 + 32*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi

*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^

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2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2 - 16*b*d*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d)^2
- 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^
2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)
^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
```

(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e
)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*
sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16
*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(2*a*d)^2*tan(a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l

og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 96*m^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2
- 36*(abs(e)*abs(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 24*m^2*x*e^

(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*
(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log

(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 240*(abs(e)*abs(x))^m*b^2*d^2*m*n^2*x - 8*b^2*d^2*m*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 128*b^2*d^2*m*n^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 128*b^2*d^2*m*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 8*b^2*d^2*m*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 8*b*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(

abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x)
)^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 1
6*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*

pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
- 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*m^3*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*m^3*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*m
^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*
b*d*m^3*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d
*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^

2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*

pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*
m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*(abs(e)*abs(x))
^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*d*n*sg

n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24
*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi
*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)
*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(2*pi*
b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(

```
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*p
i*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b
*d*m^3*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) - 8*b*d*m^3*n*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*a*d) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(2*a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 24
*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 16*m^
3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(
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b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 96*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 96*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg

n(x) - 1/2*pi*m)*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*b*d*m*n*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d) + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) +
2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) -
16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(

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2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d) + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 - 24*(abs(e)*abs(x))
^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^
3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(2*a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(2*a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2 - 24*(abs(e)*a
bs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*
m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2
*a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(2*a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(2*a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 16*m
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)
```

^2 + 24*(abs(e)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m^3*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
+ 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2
*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2

 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(2*a*d)^2 - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*b*d*m*n*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2
*a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 -
16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m^3*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m^3*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2 + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(2*a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*
b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*m*x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 +
64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi

*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 64*m
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*(abs
(e)*abs(x))^m*m^3*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m^3*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*
m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*
m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn
(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log

(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*m^3*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 16*b*d*m^3*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1

/2*pi*m)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 192*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 192*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi

*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 48*b*d*m*n*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) +
64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 48*b*d*m*n*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*a*d)^2*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*
tan(a*d) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(2*a*d)^2*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*
a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) -
 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p

```
i*m)^2*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m^3*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan
(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^
2*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) +
64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 64*m*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 24*b*d*m*n*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2
- 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) +
```

2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 48*b*d*m*n*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 48*b*d*m*n*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 24*(ab
s(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2
- 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a
*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 16*m*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 24*(abs(e
)*abs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4
*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*ab
s(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
- 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d

*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 1
6*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)*abs(x)
)^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*
b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 48*b*d*m*n*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 48*b*
d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d)^2 - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m^3*x*e^(-p

i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*m*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d
)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*m*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2
- 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 64*
m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*(abs(
e)*abs(x))^m*m^3*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24
*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l

og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 - 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*(abs(e)
*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 - 24*b*d
*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2

+ 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a
*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)*tan(a
*d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)*tan(a*d)^2 - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m^3*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2
+ 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 -
 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 -
 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*t
an(a*d)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*ta
n(a*d)^2 - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*ta

n(a*d)^2 - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d
)^2*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 4*m^3*x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*
a*d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log
(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a
d)^2 - 24(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2
+ 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(2*a*d)^2*tan(a*d)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 1

6*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 6
4*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 64*m*x*e^(-pi*
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
- 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b
*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 120*(abs(e)*abs(x))^m*b^2*d^2*n^2*x - 4*
b^2*d^2*n^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x))) + 64*b^2*d^2*n^2*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 64*b^2
*d^2*n^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x))) - 4*b^2*d^2*n^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 24*b*d*m
^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) -
24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c))) - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 +
 m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 4
8*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 16*b
*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*

n*log(abs(x)) + b*d*log(abs(c))) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) -
6*(abs(e)*abs(x))^m*m^4*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - m^4*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*m^4*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*m^4*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - m^4*x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 36*(abs(
e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 6*(abs(e)*abs(x))
^m*m^4*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x)
 + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
 + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*n*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(

c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*b*d*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4

```
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*
d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 24*b*d*m^2*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) - 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m^2*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m^4*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 96*m^2*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
```

- 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*n*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*m^2*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
+ 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*
b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*
sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*m^2*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/

4*pi*m*sgn(x) - 1/2*pi*m) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*(abs(e)*abs(x))^m*m^4*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))

*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*b*d*n*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^
2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(2
*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(

e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(-pi*b
*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m^2*n*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs

(e)) + m*log(abs(x)))*tan(2*a*d) - 24*b*d*m^2*n*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*a*d) + 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(2*a*d) + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) + 8*b*d*n*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d) - 8*b*d*n
*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*
d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn
(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 2
4*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) - 8*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d
*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 24*m^2*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d) + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d) - 4*m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*

pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 32*b*d*n*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 32*b*d*n*x*e^(-2*pi*b*d*n*sgn(
x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x
) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(2*a*d) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sg
n(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l

og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 8*b*d*n*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d) + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d) - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d
*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(ab
s(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d) - 6*(abs(e)*abs(x))^m*m^4*x*tan(2*a*d)^2 + m^4*x*e^(2*pi*b*d*n*sgn(x) -
2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(2*a*d)^2 + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 4*m^4*x*e^(-pi*b*d*n*sgn(x
) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
2*a*d)^2 + m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)^2 + 8*b*d
*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(2*a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(2*a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sg

n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2
+ 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a
*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(2*a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(2*a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*
d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x
))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(2*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(2*a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e

) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi* b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x))

+ 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
- 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(
c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*
d)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*
n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 -
4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 48*b*d*m^2*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 48*b*d*m^2*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*

sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d) - 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(

abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1

/2*pi*m)^2*tan(a*d) + 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 96
*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 1
6*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(2*a*d)^2*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(
a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 96*m^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*t
an(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d

*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d) - 6*(abs(e)*abs(x))^m*m^4*x*tan(a*d)^2 - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log

```
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)
^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(
a*d)^2 - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c
) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 36*(abs(e)*
abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(
x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*m
^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x
))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
```

s(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log

(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d)^2 + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n
*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a
*d)^2 + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 -
 36*(abs(e)*abs(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*m^2*x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(

x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 6*(a
bs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) -
 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*
sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*a*d)*tan(a*d)^2 - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)*tan(a*d)
^2 + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n -
2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*

d*log(abs(c)))^2*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b
*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b
*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)*tan(a*d)^2 - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 24*m^2*x*e^(-
2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a
*d)*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*
tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan
(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2
+ 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 4*x*e
^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(
a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)
^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)*tan(a*d)^2
- 36*(abs(e)*abs(x))^m*m^2*x*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a
*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +

m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 + 16*x*e^

(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) +
 pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 - x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c))) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c))) - 24*(abs(e)*abs(x))^m*m^3*x*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
 - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
 - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c))) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c))) - 24*(abs(e)*abs(x))^m*m^3*x*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a

```
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 16*m*x*e^(-pi*b*d*n*
sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 24*(abs(e)*a
bs(x))^m*m^3*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*
d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m^3*x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(-pi*b*d
*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*
m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(pi*b*d*n*sgn(
x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*
```

m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m) - 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x)
- 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*m*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*m*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 64*m*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*

sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*(abs(e)*abs(x))^m*m^3*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(pi*b*d*n*

sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn
(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*b*d*m*n*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*a*d) - 24*b*d*m*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) + 16*m^3*x
*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*
d) + 16*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(
c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 16
*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 16*m*x*e^(2*pi*b*d*n*s
gn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 16*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m^3*x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)
 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^
(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*s
gn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d) - 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 2
4*(abs(e)*abs(x))^m*m^3*x*tan(2*a*d)^2 + 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*p
i*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*a*d)^2 + 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 16*m^3*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2
*a*d)^2 + 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m
*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*m*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d
)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sg
n(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 16*m*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*m*x*e^(-2*pi
*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 24*
(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*fl

oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*m*x*
e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 16*m*x*e^(-2*pi*b*d
*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 + 64*m*x*e^(pi*b*d*n*sgn(x) - pi
*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(2*a*d)^2 - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 24
*(abs(e)*abs(x))^m*m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi
*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - 4*m*x*e^(-2*pi*b
*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2 + 48*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 48*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d
) - 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)
- 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)
- 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)

) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 24*(abs(e)*abs(x))^m*m^3*x*tan(a*d)^2 - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 16*m^3*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)

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))^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*
m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 4*m*x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 16*m*x*
e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 16*m*x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - 4*m*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)
^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*m*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 16*m*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*s
gn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(a*d)^2 + 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 24*(abs(e)*a
bs(x))^m*m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
```

i*m)^2*tan(a*d)^2 + 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 + 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*m^4*x - m^4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 4*m^4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 4*m^4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))) - m^4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))) - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c

) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c))) - 36*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 -
24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 6*m^2*x
*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 6*(abs(
e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(
x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + x*e^(-2*p
i*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2 + 36*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(pi*b*d
*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^
2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(2*pi*b
*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4

*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*
d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(2*pi*b*d*n*
sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*p
i*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
+ pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*
n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x)
 - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b
*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +

2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 36*(abs(e)*abs(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*b*d*n*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) - 8*b*d*n*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d) + 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d) + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d) + 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 24*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e

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) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 24*m^2*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(2*pi
*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x)
+ 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) +
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*
x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*p
i*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 4*x*e^(2*p
i*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 4*x*e^(-2*pi*b*d*n*sgn(x)
 + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) - 36*(abs(e)*abs(x))^m*m^2*x*tan(2*a*d)^2
 + 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 24*m^2*x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
a*d)^2 + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 6*m^2*x*e^(-2*pi*b*d*n*sgn(x
) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(2*a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sg
n(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*
b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi
*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m
*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + x*e^(2*pi*b*d*
n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(
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abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 - 4*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + x*e^(-2
*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 +
6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(2*a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + x*e^(
-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*
n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(2*a*d)^2 + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 1
6*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 - x*e^(2*pi*b*
d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(2*a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c
) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 16
*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(a*d) - 96*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x

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)) + b*d*log(abs(c)))*tan(a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) -
16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 9
6*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
a*d) - 96*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d) + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 16*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(2*a*d)^2*tan(a*d) +
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16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)^2*tan(a*d) - 36*(abs(e)*abs(x))^m*m^2*x*tan(a*d)^2 - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 24*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 - 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 6*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*x*

e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 16*x*e^(pi*b*d*n*sgn
(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(a*d)^2 + 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn
(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 -
6*(abs(e)*abs(x))^m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*x*e^(2*pi*b*d*n*sgn
(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*a*d)*tan(a*d)^2 + 4*
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2*
a*d)*tan(a*d)^2 - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*
b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d)*tan(a*d)^2 - 6*(abs(e
)*abs(x))^m*x*tan(2*a*d)^2*tan(a*d)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
+ 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2
*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(2*a*d)^2*tan(a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*s
gn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2*tan(a*d)^2 -
24*(abs(e)*abs(x))^m*m^3*x - 4*m^3*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2
*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 16*m^3*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x))) + 16*m^3*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x))) - 4*m^3*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d
*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 24*(abs(
e)*abs(x))^m*m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*m*x*e^(
2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*m*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 16*m*x*e^(-pi*

```
b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*m*x*e^(-2*pi*b*d*
n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 - 24*(abs(e)*abs(x)
)^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 4*m*x*e^(2*pi*b*d*n*sg
n(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 16*m*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2 - 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d
*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2
*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2 + 24*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 16*m*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*m*x*e^(-2*pi*
b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n
 + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 64*m*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*(abs(e)*a
bs(x))^m*m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*x*e^
(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16
*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 16*
m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m
*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 + 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d +
```

m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)*tan(2*a*d) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c)
+ 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d
*log(abs(c)))*tan(2*a*d) - 16*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*
b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) + 16*m*x*e^(-2*pi*b*d*n*sgn(x) + 2
*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 24*(abs(e)*abs(
x))^m*m*x*tan(2*a*d)^2 + 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d
*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 16*m*x*e
^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(2*a*d)^2 + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 4*m*x*e^(-2*
pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(2*a*d)^2 - 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))*tan(a*d) + 64*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(a*d) - 64*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 24*(abs(e)*abs(x))^m*m*x*tan(a*d)^2
- 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 16*m*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 -
16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(a*d)^2 - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n
- 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 -
36*(abs(e)*abs(x))^m*m^2*x - 6*m^2*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*
pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 24*m^2*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x))) + 24*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x))) - 6*m^2*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*
n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 6*(abs(e)
*abs(x))^m*x*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + x*e^(2*pi*b*d
*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*x*e^(pi*b*d*n*
sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 4*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*
d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 - 6*(abs(e)*abs(x))^m*x*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*

b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 -
x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 6*(abs
(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n +
 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi
*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*x*e^(2*pi*b*d*n
*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 + 16*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 16*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n
- pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
 6*(abs(e)*abs(x))^m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 -
4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e
^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))*tan(2
*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))*tan(2*a*d) - 4*x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) -
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(2*a*d) + 4*x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi

```
*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(2*a*d) - 6*(abs(e)*abs(x))^m*x*tan(2*a*d
)^2 + x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 +
 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(2*a*d)^2 + x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*
pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(2*a*d)^2 - 16
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 16*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) + 16*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 6*
(abs(e)*abs(x))^m*x*tan(a*d)^2 - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi
*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 4*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(a*d)^2 - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - x*e^(-2*pi*b*d*n*sgn
(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(a*d)^2 - 24*(abs(e)*abs(x))^m*m*x - 4*m*x*e^(2*pi*b*d*n*sgn(x) - 2*
pi*b*d*n + 2*pi*b*d*sgn(c) - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 16
*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x))) + 16*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 4*m*x*e^(-2*pi*b*d*n*sgn(x) + 2*
pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 6*
(abs(e)*abs(x))^m*x - x*e^(2*pi*b*d*n*sgn(x) - 2*pi*b*d*n + 2*pi*b*d*sgn(c)
 - 2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 4*x*e^(pi*b*d*n*sgn(x) - pi*
b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 4*x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x))) - x*e^(-2*pi*b*d*n*sgn(x) + 2*pi*b*d*n - 2*pi*b*d*sgn(c) + 2*pi*b*
d + m*log(abs(e)) + m*log(abs(x))))/(64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^
4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs
```

(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*
n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b
^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*
b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4
*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m

)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi *m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 *tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b *d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b* d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log (abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2 *pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d) ^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi *m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4 *pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b ^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m *n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p i*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(pi* m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d) ^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1 /4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64 *b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p i*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*l og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/ 4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^ 2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi *m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/ 4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi* m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi* m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn

(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*t
an(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 6
4*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*
n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^
4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^
4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^
2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*

n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 + 64*b^4*d^4*m*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64
*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^
4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*
b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d
^4*m*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^
4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)
^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^
2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s

gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d
^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*
n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^
2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)
^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^
4*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 64
*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*
d)^2 + 64*b^4*d^4*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi

```
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*
d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64
*b^4*d^4*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)
^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d
^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^
2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2
*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m
*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*
b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
```

/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4
*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b
^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 64*b^4
*d^4*m*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*l
og(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d
^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*
d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2
*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*a*d)^2*tan(a*d)^2 +
20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*
n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^
2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn

(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 64*b^4*d^4*n
^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*
b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 64*b^4*d^4*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*ta
n(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a

bs(c)))^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d
^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*
m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*a*d
)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2
 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*
b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60
*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d
^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d
^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*
m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +

b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 64*b^4*d^4*m*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 64*b^4*d^4*m*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*m*n^4*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b *d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 64*b^4*d^4*m*n^4*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60* b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 64*b^4*d^4*n^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 64*b^4*d^4*n^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 64*b^4*d^4*n^4*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e

) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*
n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 + 64*b^4*d^4*n^4*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x))
+ 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +

60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*m*n^4 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +

60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs

(c)))^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 20*b^2*d^
2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2
*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*
n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2
*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n
^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(
abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*
sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*
tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log
(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(2

*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*
m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 1
0*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m
*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 64*b^4*d^4*n^4 + 60*b^2*d^2*m^2*n^2*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2
*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*
b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*lo
g(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*

n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 2
0*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*
d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20
*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(2*a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 +
 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*
d)^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 6
0*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s

gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(
abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*
tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2
*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60
*b^2*d^2*m^2*n^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*t
an(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*
log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d
)^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)

+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*m^3*n^2*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 20*b^2*d^2*m^3*n^2*tan(b*d*n*
log(abs(x)) + b*d*log(abs(c)))^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 20*b^2
*d^2*m^3*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x))
 + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*b*d*n*log(ab
s(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 20*b^2*d^2*m^3*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 20*b^2*d^2*m^3*n^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs
(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2
 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*
m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x

```
) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^
3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*
a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(2*a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*m^3*n^2*tan(a*d)^2 + 60*b^2*d^
2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 60*b^2*
d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^5*tan(2
*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^
5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*
d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d
^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m
^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
+ 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x
)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(
c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
+ 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
```

(x) - 1/2*pi*m)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2*tan(2*a*d)^2*tan(a*d)^2 + m
^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 +
m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 1
0*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log
(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan
(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2
+ 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b
^2*d^2*m^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 60*b^2*d^2*
m^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 20*b^2*d^2*n^2*tan(2*b
*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2 + 60*b^2*d^2*m^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*b*d
*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(
2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*
b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log

(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m^2*n^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m^2*n^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 +

```
5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a
*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)
))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
)^2 + 20*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)
) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 20*b^2*d^2*n^2*tan(2*a*d)^2*ta
n(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^
2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^
2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*ta
n(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m
^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
```

- 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*lo
g(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(
a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 +
20*b^2*d^2*m^3*n^2 + 60*b^2*d^2*m*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2 + 60*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + m
^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2 + 60*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(2*b*d*n*log(a
bs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*
m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^
5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c))
)^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 60*b^2*d^2*m*n^2*tan(2*a*d)^2
 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + m^5*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(2*a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)

+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 60*b^2*d^2*m*n^2*tan(a*d)^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2

```
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^5*tan(2
*a*d)^2*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*
tan(2*a*d)^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 10*
m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^
2*tan(a*d)^2 + 10*m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(2*a*d)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^
2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d
)^2 + 60*b^2*d^2*m^2*n^2 + 20*b^2*d^2*n^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*l
og(abs(c)))^2 + 20*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 +
 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))^2 + 20*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(2*b*
d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(2*b*d*n
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m^4*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(
b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn
(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(a
bs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
```

n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*n^2*tan(2*a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 20*b^2*d^2*n^2*tan(a*d)^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +

10*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m^4*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 10*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 60*b^2*d^2*m*n^2 + m^5*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + m^5*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + m^5*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2* tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^5*tan(2*a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + m^5*tan(a*d)^2 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^3*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 5*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + 20*b^2*d^2*n^2 + 5*m^4*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 5*m^4*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 5*m^4*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)

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+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*log(abs(x
)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 5*m^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*
log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 5*m^4*tan(2*a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2
*tan(2*a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d
)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(2*a*d)^2 + 10*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2
 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2
*a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(2*a*d)^2 + 10*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(2*a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
2*a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(2*a*d)^2 + 5*m^4*tan(a*d)^2 + 10*m^2*tan(2*b*d*n*log(abs(x)) +
2*b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 10*m^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + 10*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)
```

) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 10*m^2*tan(2*a*d)^2*tan(a*d)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2*tan(a*d)^2 + m^5 + 10*m^3*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 10*m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 10*m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^3*tan(2*a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(2*a*d)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 5*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^3*tan(a*d)^2 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 5*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 5*m*tan(2*a*d)^2*tan(a*d)^2 + 5*m^4 + 10*m^2*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2 + 10*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 10*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*m^2*tan(2*a*d)^2 + tan(2*b*d*n

```
*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(2*a*d)^2 + tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(2*a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) +
 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(2*a*d)^2 + 10*m^2*tan(a*d
)^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c)))^2*tan(a*d)^2 + tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(2
*a*d)^2*tan(a*d)^2 + 10*m^3 + 5*m*tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs(c
)))^2 + 5*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 5*m*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 5*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 5*m*tan(2
*a*d)^2 + 5*m*tan(a*d)^2 + 10*m^2 + tan(2*b*d*n*log(abs(x)) + 2*b*d*log(abs
(c)))^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(2*a*d)^2 + tan(
a*d)^2 + 5*m + 1)
```

Mupad [B] (verification not implemented)

Time = 28.21 (sec) , antiderivative size = 175, normalized size of antiderivative = 0.52

$$\int (ex)^m \sin^4 (d(a+b\log (cx^n)))\, dx = \frac{3\,x\,(e\,x)^m}{8\,m+8} - \frac{x\,\mathrm{e}^{a\,d\,2\mathrm{i}}\,(c\,x^n)^{b\,d\,2\mathrm{i}}\,(e\,x)^m}{4\,m+4+b\,d\,n\,8\mathrm{i}} - \frac{x\,\mathrm{e}^{-a\,d\,2\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,d\,2\mathrm{i}}}\,(e\,x)^m\,1\mathrm{i}}{m\,4\mathrm{i}+8\,b\,d\,n+4\mathrm{i}} + \frac{x\,\mathrm{e}^{a\,d\,4\mathrm{i}}\,(c\,x^n)^{b\,d\,4\mathrm{i}}\,(e\,x)^m}{16\,m+16+b\,d\,n\,64\mathrm{i}} + \frac{x\,\mathrm{e}^{-a\,d\,4\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,d\,4\mathrm{i}}}\,(e\,x)^m\,1\mathrm{i}}{m\,16\mathrm{i}+64\,b\,d\,n+16\mathrm{i}}$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^4*(e*x)^m,x)
```

```
[Out] (3*x*(e*x)^m)/(8*m + 8) - (x*exp(a*d*2i)*(c*x^n)^(b*d*2i)*(e*x)^m)/(4*m + b
*d*n*8i + 4) - (x*exp(-a*d*2i)/(c*x^n)^(b*d*2i)*(e*x)^m*1i)/(m*4i + 8*b*d*n
 + 4i) + (x*exp(a*d*4i)*(c*x^n)^(b*d*4i)*(e*x)^m)/(16*m + b*d*n*64i + 16) +
 (x*exp(-a*d*4i)/(c*x^n)^(b*d*4i)*(e*x)^m*1i)/(m*16i + 64*b*d*n + 16i)
```

3.71 $\int (ex)^m \sin^3 (d(a + b \log (cx^n))) \, dx$

Optimal result 1034
Rubi [A] (verified) 1034
Mathematica [A] (verified) 1036
Maple [F] 1037
Fricas [A] (verification not implemented) 1037
Sympy [F] 1038
Maxima [B] (verification not implemented) 1039
Giac [B] (verification not implemented) 1046
Mupad [B] (verification not implemented) 1200

Optimal result

Integrand size = 21, antiderivative size = 256

$$\begin{aligned}\int (ex)^m \sin^3 (d(a+b\log (cx^n))) \, dx &= -\frac{6b^3d^3n^3(ex)^{1+m}\cos (d(a+b\log (cx^n)))}{e((1+m)^2+b^2d^2n^2)((1+m)^2+9b^2d^2n^2)} \\ &\quad + \frac{6b^2d^2(1+m)n^2(ex)^{1+m}\sin (d(a+b\log (cx^n)))}{e((1+m)^2+b^2d^2n^2)((1+m)^2+9b^2d^2n^2)} \\ &\quad - \frac{3bdn(ex)^{1+m}\cos (d(a+b\log (cx^n)))\sin^2 (d(a+b\log (cx^n)))}{e((1+m)^2+9b^2d^2n^2)} \\ &\quad + \frac{(1+m)(ex)^{1+m}\sin^3 (d(a+b\log (cx^n)))}{e((1+m)^2+9b^2d^2n^2)}\end{aligned}$$

```
[Out] -6*b^3*d^3*n^3*(e*x)^(1+m)*cos(d*(a+b*ln(c*x^n)))/e/((1+m)^2+b^2*d^2*n^2)/(
(1+m)^2+9*b^2*d^2*n^2)+6*b^2*d^2*(1+m)*n^2*(e*x)^(1+m)*sin(d*(a+b*ln(c*x^n)
))/e/((1+m)^2+b^2*d^2*n^2)/((1+m)^2+9*b^2*d^2*n^2)-3*b*d*n*(e*x)^(1+m)*cos(
d*(a+b*ln(c*x^n)))*sin(d*(a+b*ln(c*x^n)))^2/e/((1+m)^2+9*b^2*d^2*n^2)+(1+m)
*(e*x)^(1+m)*sin(d*(a+b*ln(c*x^n)))^3/e/((1+m)^2+9*b^2*d^2*n^2)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 256, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.095, Rules used

$= \{4575, 4573\}$

$$\int (ex)^m \sin^3\left(d(a+b\log\left(cx^n\right))\right)\,dx$$
$$= \frac{(m+1)(ex)^{m+1}\sin^3\left(d(a+b\log\left(cx^n\right))\right)}{e\left(9b^2d^2n^2+(m+1)^2\right)} + \frac{6b^2d^2(m+1)n^2(ex)^{m+1}\sin\left(d(a+b\log\left(cx^n\right))\right)}{e\left(b^2d^2n^2+(m+1)^2\right)\left(9b^2d^2n^2+(m+1)^2\right)} - \frac{3bdn(ex)^{m+1}\sin^2\left(d(a+b\log\left(cx^n\right))\right)\cos\left(d(a+b\log\left(cx^n\right))\right)}{e\left(9b^2d^2n^2+(m+1)^2\right)} - \frac{6b^3d^3n^3(ex)^{m+1}\cos\left(d(a+b\log\left(cx^n\right))\right)}{e\left(b^2d^2n^2+(m+1)^2\right)\left(9b^2d^2n^2+(m+1)^2\right)}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] (-6*b^3*d^3*n^3*(e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])])/(e*((1 + m)^2 + b^
2*d^2*n^2)*((1 + m)^2 + 9*b^2*d^2*n^2)) + (6*b^2*d^2*(1 + m)*n^2*(e*x)^(1 +
 m)*Sin[d*(a + b*Log[c*x^n])])/(e*((1 + m)^2 + b^2*d^2*n^2)*((1 + m)^2 + 9*
b^2*d^2*n^2)) - (3*b*d*n*(e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])]*Sin[d*(a +
 b*Log[c*x^n])]^2)/(e*((1 + m)^2 + 9*b^2*d^2*n^2)) + ((1 + m)*(e*x)^(1 + m)
*Sin[d*(a + b*Log[c*x^n])]^3)/(e*((1 + m)^2 + 9*b^2*d^2*n^2))
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{3bdn(ex)^{1+m}\cos\left(d(a+b\log\left(cx^n\right))\right)\sin^2\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+9b^2d^2n^2\right)} \\ &\quad+\frac{(1+m)(ex)^{1+m}\sin^3\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+9b^2d^2n^2\right)} \\ &\quad+\frac{\left(6b^2d^2n^2\right)\int(ex)^m\sin\left(d(a+b\log\left(cx^n\right))\right)\,dx}{(1+m)^2+9b^2d^2n^2} \\ &= -\frac{6b^3d^3n^3(ex)^{1+m}\cos\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+b^2d^2n^2\right)\left((1+m)^2+9b^2d^2n^2\right)} \\ &\quad+\frac{6b^2d^2(1+m)n^2(ex)^{1+m}\sin\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+b^2d^2n^2\right)\left((1+m)^2+9b^2d^2n^2\right)} \\ &\quad-\frac{3bdn(ex)^{1+m}\cos\left(d(a+b\log\left(cx^n\right))\right)\sin^2\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+9b^2d^2n^2\right)} \\ &\quad+\frac{(1+m)(ex)^{1+m}\sin^3\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+9b^2d^2n^2\right)}\end{aligned}$$

Mathematica [A] (verified)

Time = 1.06 (sec) , antiderivative size = 326, normalized size of antiderivative = 1.27

$$\begin{aligned}&\int(ex)^m\sin^3\left(d(a+b\log\left(cx^n\right))\right)\,dx \\ &= \frac{1}{4}x(ex)^m\left(\frac{3\cos(bdn\log(x))\left(-bdn\cos\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)+(1+m)\sin\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)\right)}{1+2m+m^2+b^2d^2n^2}\right. \\ &\quad+\frac{3\sin(bdn\log(x))\left((1+m)\cos\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)+bdn\sin\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)\right)}{1+2m+m^2+b^2d^2n^2} \\ &\quad-\frac{\cos(3bdn\log(x))\left(-3bdn\cos\left(3d(a-bn\log(x)+b\log\left(cx^n\right))\right)+(1+m)\sin\left(3d(a-bn\log(x)+b\log\left(cx^n\right))\right)\right)}{1+2m+m^2+9b^2d^2n^2} \\ &\quad\left.-\frac{\sin(3bdn\log(x))\left((1+m)\cos\left(3d(a-bn\log(x)+b\log\left(cx^n\right))\right)+3bdn\sin\left(3d(a-bn\log(x)+b\log\left(cx^n\right))\right)\right)}{1+2m+m^2+9b^2d^2n^2}\right)\end{aligned}$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] (x*(e*x)^m*((3*Cos[b*d*n*Log[x]]*(-(b*d*n*Cos[d*(a - b*n*Log[x] + b*Log[c*x
^n])]) + (1 + m)*Sin[d*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 +
b^2*d^2*n^2) + (3*Sin[b*d*n*Log[x]]*((1 + m)*Cos[d*(a - b*n*Log[x] + b*Log[
c*x^n])] + b*d*n*Sin[d*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 +
b^2*d^2*n^2) - (Cos[3*b*d*n*Log[x]]*(-3*b*d*n*Cos[3*d*(a - b*n*Log[x] + b*L
og[c*x^n])] + (1 + m)*Sin[3*d*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m +
 m^2 + 9*b^2*d^2*n^2) - (Sin[3*b*d*n*Log[x]]*((1 + m)*Cos[3*d*(a - b*n*Log[
x] + b*Log[c*x^n])] + 3*b*d*n*Sin[3*d*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1
 + 2*m + m^2 + 9*b^2*d^2*n^2)))/4
```

Maple [F]

$$\int (ex)^m \sin (d(a+b\ln (c\,x^n)))^3 dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^3,x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^3,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.30 (sec) , antiderivative size = 293, normalized size of antiderivative = 1.14

$$\int (ex)^m \sin^3 (d(a+b\log (cx^n)))\,dx =$$
$$-\frac{((m^3+(b^2d^2m+b^2d^2)n^2+3\,m^2+3\,m+1)x\cos (bdn\log (x)+bd\log (c)+ad)^2-(m^3+7\,(b^2d^2m+b$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^3,x, algorithm="fricas")
```

```
[Out] -(((m^3 + (b^2*d^2*m + b^2*d^2)*n^2 + 3*m^2 + 3*m + 1)*x*cos(b*d*n*log(x) +
 b*d*log(c) + a*d)^2 - (m^3 + 7*(b^2*d^2*m + b^2*d^2)*n^2 + 3*m^2 + 3*m + 1
)*x)*e^(m*log(e) + m*log(x))*sin(b*d*n*log(x) + b*d*log(c) + a*d) - 3*((b^3
*d^3*n^3 + (b*d*m^2 + 2*b*d*m + b*d)*n)*x*cos(b*d*n*log(x) + b*d*log(c) + a
*d)^3 - (3*b^3*d^3*n^3 + (b*d*m^2 + 2*b*d*m + b*d)*n)*x*cos(b*d*n*log(x) +
b*d*log(c) + a*d))*e^(m*log(e) + m*log(x)))/(9*b^4*d^4*n^4 + m^4 + 4*m^3 +
10*(b^2*d^2*m^2 + 2*b^2*d^2*m + b^2*d^2)*n^2 + 6*m^2 + 4*m + 1)
```

Sympy [F]

$$\int (ex)^m \sin^3(d(a+b\log(cx^n)))\,dx$$

$$= \frac{3\left(\begin{cases} \frac{\log(x)\sin(ad)}{e} & \text{for } b=0\wedge m=-1 \\ -\int (ex)^m \sin\left(-ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i(m+1)}{dn} \\ \int (ex)^m \sin\left(ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i(m+1)}{dn} \\ -\frac{bdnx(ex)^m\cos(ad+bd\log(cx^n))}{b^2d^2n^2+m^2+2m+1}+\frac{mx(ex)^m\sin(ad+bd\log(cx^n))}{b^2d^2n^2+m^2+2m+1}+\frac{x(ex)^m\sin(ad+bd\log(cx^n))}{b^2d^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}\right)}{4} - \frac{\begin{cases} \frac{\log(x)\sin(3ad)}{e} & \text{for } b=0\wedge m=- \\ -\int (ex)^m \sin\left(-3ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i(m+1)}{3dn} \\ \int (ex)^m \sin\left(3ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i(m+1)}{3dn} \\ -\frac{3bdnx(ex)^m\cos(3ad+3bd\log(cx^n))}{9b^2d^2n^2+m^2+2m+1}+\frac{mx(ex)^m\sin(3ad+3bd\log(cx^n))}{9b^2d^2n^2+m^2+2m+1}+\frac{x(ex)^m\sin(3ad+3bd\log(cx^n))}{9b^2d^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}}{4}$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**3,x)
```

```
[Out] 3*Piecewise((log(x)*sin(a*d)/e, Eq(b, 0) & Eq(m, -1)), (-Integral((e*x)**m*
sin(-a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/(d*n)
)), (Integral((e*x)**m*sin(a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x),
Eq(b, I*(m + 1)/(d*n))), (-b*d*n*x*(e*x)**m*cos(a*d + b*d*log(c*x**n))/(b**
2*d**2*n**2 + m**2 + 2*m + 1) + m*x*(e*x)**m*sin(a*d + b*d*log(c*x**n))/(b*
*2*d**2*n**2 + m**2 + 2*m + 1) + x*(e*x)**m*sin(a*d + b*d*log(c*x**n))/(b**
2*d**2*n**2 + m**2 + 2*m + 1), True))/4 - Piecewise((log(x)*sin(3*a*d)/e, E
q(b, 0) & Eq(m, -1)), (-Integral((e*x)**m*sin(-3*a*d + I*m*log(c*x**n)/n +
I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/(3*d*n))), (Integral((e*x)**m*sin(3*
a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, I*(m + 1)/(3*d*n))),
(-3*b*d*n*x*(e*x)**m*cos(3*a*d + 3*b*d*log(c*x**n))/(9*b**2*d**2*n**2 + m**
2 + 2*m + 1) + m*x*(e*x)**m*sin(3*a*d + 3*b*d*log(c*x**n))/(9*b**2*d**2*n**
2 + m**2 + 2*m + 1) + x*(e*x)**m*sin(3*a*d + 3*b*d*log(c*x**n))/(9*b**2*d**
2*n**2 + m**2 + 2*m + 1), True))/4
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 11491 vs. $2(256) = 512$.

Time = 0.55 (sec) , antiderivative size = 11491, normalized size of antiderivative = 44.89

$$\int (ex)^m \sin^3(d(a + b\log(cx^n))) \, dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^3,x, algorithm="maxima")
```

```
[Out] -1/8*(((((cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c))
- (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*
b*d*log(c)) + ((cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*cos(3*b*d*lo
g(c)) + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*
sin(6*b*d*log(c)) + cos(3*a*d)*sin(3*b*d*log(c)) + cos(3*b*d*log(c))*sin(3*
a*d))*e^m*m^3 - 3*(b^3*d^3*cos(3*b*d*log(c))*cos(3*a*d) - b^3*d^3*sin(3*b*d
*log(c))*sin(3*a*d) + ((b^3*d^3*cos(6*a*d)*cos(3*a*d) + b^3*d^3*sin(6*a*d)*
sin(3*a*d))*cos(3*b*d*log(c)) + (b^3*d^3*cos(3*a*d)*sin(6*a*d) - b^3*d^3*co
s(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) - ((b^3*d^3*cos(3
*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b^3*
d^3*cos(6*a*d)*cos(3*a*d) + b^3*d^3*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)
))*sin(6*b*d*log(c)))*e^m*n^3 + 3*(((cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin
(3*a*d))*cos(3*b*d*log(c)) - (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d)
)*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(6*a*d)*cos(3*a*d) + sin(6*a*
d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(
3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)) + cos(3*a*d)*sin(3*b*d*log(c))
 + cos(3*b*d*log(c))*sin(3*a*d))*e^m*m^2 + 3*(((cos(3*a*d)*sin(6*a*d) - cos
(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)
*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(6*a*d)*cos(3*a*d)
 + sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(6*a*d) - cos(
6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)) + cos(3*a*d)*sin(3*
b*d*log(c)) + cos(3*b*d*log(c))*sin(3*a*d))*e^m*m + ((b^2*d^2*cos(3*a*d)*si
n(3*b*d*log(c)) + b^2*d^2*cos(3*b*d*log(c))*sin(3*a*d) + ((b^2*d^2*cos(3*a*
d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b^2*d^2
*cos(6*a*d)*cos(3*a*d) + b^2*d^2*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*
cos(6*b*d*log(c)) + ((b^2*d^2*cos(6*a*d)*cos(3*a*d) + b^2*d^2*sin(6*a*d)*si
n(3*a*d))*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*cos(
6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m*m + (b^2*d^2*c
os(3*a*d)*sin(3*b*d*log(c)) + b^2*d^2*cos(3*b*d*log(c))*sin(3*a*d) + ((b^2*
d^2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)
) - (b^2*d^2*cos(6*a*d)*cos(3*a*d) + b^2*d^2*sin(6*a*d)*sin(3*a*d))*sin(3*b
*d*log(c)))*cos(6*b*d*log(c)) + ((b^2*d^2*cos(6*a*d)*cos(3*a*d) + b^2*d^2*s
in(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(6*a*d) -
b^2*d^2*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m)*n
^2 + (((cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) -
```

(cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + ((cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)) + cos(3*a*d)*sin(3*b*d*log(c)) + cos(3*b*d*log(c))*sin(3*a*d))*e^m - 3*((b*d*cos(3*b*d*log(c))*cos(3*a*d) - b*d*sin(3*b*d*log(c))*sin(3*a*d) + ((b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) - ((b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m*m^2 + 2*(b*d*cos(3*b*d*log(c))*cos(3*a*d) - b*d*sin(3*b*d*log(c))*sin(3*a*d) + ((b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) - ((b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m*m + (b*d*cos(3*b*d*log(c))*cos(3*a*d) - b*d*sin(3*b*d*log(c))*sin(3*a*d) + ((b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) - ((b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m)*n)*x*x^m*cos(3*b*d*log(x^n)) - 3*((((cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) + ((cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m*m^3 - 9*(((b^3*d^3*cos(4*a*d)*cos(3*a*d) + b^3*d^3*sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b^3*d^3*cos(3*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^3*d^3*cos(3*a*d)*cos(2*a*d) + b^3*d^3*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^3*d^3*cos(2*a*d)*sin(3*a*d) - b^3*d^3*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) - ((b^3*d^3*cos(3*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b^3*d^3*cos(4*a*d)*cos(3*a*d) + b^3*d^3*sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((b^3*d^3*cos(2*a*d)*sin(3*a*d) - b^3*d^3*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^3*d^3*cos(3*a*d)*cos(2*a*d) + b^3*d^3*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m*n^3 + 3*(((cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) + ((cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))

```
*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*sin(3*
b*d*log(c)))*sin(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2
*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*
sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m*m^2 + 3*(((cos(3*a*d)*sin(4*a*d)
- cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4
*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(2*a*d)*sin(3
*a*d) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) +
 sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) + ((cos(4*a*d)
*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*
a*d) - cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((cos(
3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*
sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e
^m*m + 9*((((b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(3*a*d))
*cos(3*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*si
n(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(2*a*d)*sin(3
*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d^2*cos(3*a
*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*
d*log(c)) + ((b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*sin(3*a*d)
)*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*s
in(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((b^2*d^2*cos(3*a*d)*cos(
2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^2*cos(2*
a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b
*d*log(c)))*e^m*m + (((b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*s
in(3*a*d))*cos(3*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin
(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(2*
a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d
^2*cos(3*a*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c))
)*cos(3*b*d*log(c)) + ((b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*
sin(3*a*d))*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*co
s(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((b^2*d^2*cos(3
*a*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*
d^2*cos(2*a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)
))*sin(3*b*d*log(c)))*e^m)*n^2 + (((cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(
3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))
*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(2*a*d)*sin(3*a*d) - cos(3*a*d
)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2
*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) + ((cos(4*a*d)*cos(3*a*d) + sin
(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)
*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d)
 + sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(
3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m - ((((b*d*cos(
4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos
(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*
d*log(c)) + ((b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*cos(2*
b*d*log(c)) + (b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*sin(2
```

```
*b*d*log(c)))*cos(3*b*d*log(c)) - ((b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4*a
*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*
a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((b*d*cos(2*a*d)*si
n(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(3*a*d)*c
os(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c))
)*e^m*m^2 + 2*(((b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*cos
(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*si
n(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(
3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos
(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) - ((b*d*cos(3*a*d)
*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(4*a*d
)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(
c)) - ((b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*lo
g(c)) - (b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*l
og(c)))*sin(3*b*d*log(c)))*e^m*m + (((b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4
*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(
4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(3*a*d)*
cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)
*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c
)) - ((b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log
(c)) - (b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*sin(3*b*d*lo
g(c)))*sin(4*b*d*log(c)) - ((b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*sin
(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*si
n(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m)*n)*x*x^m*cos(b*d*log(x
^n)) + ((((cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c))
 + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6
*b*d*log(c)) + cos(3*b*d*log(c))*cos(3*a*d) - ((cos(3*a*d)*sin(6*a*d) - cos
(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)
*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)) - sin(3*b*d*log(c))*sin(3
*a*d))*e^m*m^3 + 3*(b^3*d^3*cos(3*a*d)*sin(3*b*d*log(c)) + b^3*d^3*cos(3*b*
d*log(c))*sin(3*a*d) + ((b^3*d^3*cos(3*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)
*sin(3*a*d))*cos(3*b*d*log(c)) - (b^3*d^3*cos(6*a*d)*cos(3*a*d) + b^3*d^3*s
in(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + ((b^3*d^3*cos(
6*a*d)*cos(3*a*d) + b^3*d^3*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b^3
*d^3*cos(3*a*d)*sin(6*a*d) - b^3*d^3*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c
)))*sin(6*b*d*log(c)))*e^m*n^3 + 3*(((cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*si
n(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d
))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + cos(3*b*d*log(c))*cos(3*a*d) - ((
cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(6*a
*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)
) - sin(3*b*d*log(c))*sin(3*a*d))*e^m*m^2 + 3*(((cos(6*a*d)*cos(3*a*d) + si
n(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(6*a*d) - cos(6*a*d
)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + cos(3*b*d*log(c))*cos(
3*a*d) - ((cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c))
 - (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6
```

*b*d*log(c)) - sin(3*b*d*log(c))*sin(3*a*d))*e^m*m + ((b^2*d^2*cos(3*b*d*lo
g(c))*cos(3*a*d) - b^2*d^2*sin(3*b*d*log(c))*sin(3*a*d) + ((b^2*d^2*cos(6*a
*d)*cos(3*a*d) + b^2*d^2*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b^2*d^
2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))
*cos(6*b*d*log(c)) - ((b^2*d^2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*s
in(3*a*d))*cos(3*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*cos(3*a*d) + b^2*d^2*sin
(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m*m + (b^2*d^2*
cos(3*b*d*log(c))*cos(3*a*d) - b^2*d^2*sin(3*b*d*log(c))*sin(3*a*d) + ((b^2
*d^2*cos(6*a*d)*cos(3*a*d) + b^2*d^2*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c
)) + (b^2*d^2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*cos(6*a*d)*sin(3*a*d))*sin(3*
b*d*log(c)))*cos(6*b*d*log(c)) - ((b^2*d^2*cos(3*a*d)*sin(6*a*d) - b^2*d^2*
cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b^2*d^2*cos(6*a*d)*cos(3*a*d) +
 b^2*d^2*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m)*
n^2 + (((cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) +
 (cos(3*a*d)*sin(6*a*d) - cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b
*d*log(c)) + cos(3*b*d*log(c))*cos(3*a*d) - ((cos(3*a*d)*sin(6*a*d) - cos(6
*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(6*a*d)*cos(3*a*d) + sin(6*a*d)*s
in(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)) - sin(3*b*d*log(c))*sin(3*a
*d))*e^m + 3*((b*d*cos(3*a*d)*sin(3*b*d*log(c)) + b*d*cos(3*b*d*log(c))*sin
(3*a*d) + ((b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*cos(3*b*
d*log(c)) - (b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*sin(3*b
*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d
)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*
d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))*e^m*m^2 + 2*(b*d*cos(3
*a*d)*sin(3*b*d*log(c)) + b*d*cos(3*b*d*log(c))*sin(3*a*d) + ((b*d*cos(3*a*
d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(6*a
*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*lo
g(c)) + ((b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*
log(c)) + (b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*sin(3*b*d
*log(c)))*sin(6*b*d*log(c)))*e^m*m + (b*d*cos(3*a*d)*sin(3*b*d*log(c)) + b*
d*cos(3*b*d*log(c))*sin(3*a*d) + ((b*d*cos(3*a*d)*sin(6*a*d) - b*d*cos(6*a*
d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(6*a*d)*cos(3*a*d) + b*d*sin(6*a
*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(6*b*d*log(c)) + ((b*d*cos(6*a*d)*cos
(3*a*d) + b*d*sin(6*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*si
n(6*a*d) - b*d*cos(6*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(6*b*d*log(c)))
*e^m)*n)*x*x^m*sin(3*b*d*log(x^n)) - 3*((((cos(4*a*d)*cos(3*a*d) + sin(4*a*
d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(
3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d) + si
n(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(3*a*d
)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) - ((cos(3*a*d)*sin(4*a*d
) - cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin
(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((cos(2*a*d)*sin
(3*a*d) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d)
 + sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m*m^3 + 9
*(((b^3*d^3*cos(3*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(3*a*d))*cos(3*b*

d*log(c)) - (b^3*d^3*cos(4*a*d)*cos(3*a*d) + b^3*d^3*sin(4*a*d)*sin(3*a*d))
*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^3*d^3*cos(2*a*d)*sin(3*a*d) - b
^3*d^3*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^3*d^3*cos(3*a*d)*cos(2
*a*d) + b^3*d^3*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c))
 + ((b^3*d^3*cos(4*a*d)*cos(3*a*d) + b^3*d^3*sin(4*a*d)*sin(3*a*d))*cos(3*b
*d*log(c)) + (b^3*d^3*cos(3*a*d)*sin(4*a*d) - b^3*d^3*cos(4*a*d)*sin(3*a*d)
)*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((b^3*d^3*cos(3*a*d)*cos(2*a*d) +
b^3*d^3*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^3*d^3*cos(2*a*d)*sin(
3*a*d) - b^3*d^3*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)
))*e^m*n^3 + 3*(((cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*cos(3*b*d*
log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c))
)*cos(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*cos(
2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*sin(2*b*d*l
og(c)))*cos(3*b*d*log(c)) - ((cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d)
)*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin(3*a*d))*sin(3
*b*d*log(c)))*sin(4*b*d*log(c)) - ((cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(
2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))
*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m*m^2 + 3*(((cos(4*a*d)*cos(3*a*d)
 + sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(
4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(3*a*d)*cos(
2*a*d) + sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d)
- cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) - ((cos(3*a*d
)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3
*a*d) + sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((cos
(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)
*cos(2*a*d) + sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*
e^m*m + 9*((((b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*sin(3*a*d)
)*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*s
in(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(3*a*d)*cos(
2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*d^2*cos(2*
a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b
*d*log(c)) - ((b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)*sin(3*a*d
))*cos(3*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*
sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((b^2*d^2*cos(2*a*d)*sin
(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2*d^2*cos(3
*a*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*
b*d*log(c)))*e^m*m + (((b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*sin(4*a*d)*
sin(3*a*d))*cos(3*b*d*log(c)) + (b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*co
s(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b^2*d^2*cos(3
*a*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b^2*
d^2*cos(2*a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)
))*cos(3*b*d*log(c)) - ((b^2*d^2*cos(3*a*d)*sin(4*a*d) - b^2*d^2*cos(4*a*d)
*sin(3*a*d))*cos(3*b*d*log(c)) - (b^2*d^2*cos(4*a*d)*cos(3*a*d) + b^2*d^2*s
in(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((b^2*d^2*cos(
2*a*d)*sin(3*a*d) - b^2*d^2*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b^2

*d^2*cos(3*a*d)*cos(2*a*d) + b^2*d^2*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c
)))*sin(3*b*d*log(c)))*e^m)*n^2 + (((cos(4*a*d)*cos(3*a*d) + sin(4*a*d)*sin
(3*a*d))*cos(3*b*d*log(c)) + (cos(3*a*d)*sin(4*a*d) - cos(4*a*d)*sin(3*a*d)
)*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((cos(3*a*d)*cos(2*a*d) + sin(3*a*
d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(3*a*d) - cos(3*a*d)*sin(
2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) - ((cos(3*a*d)*sin(4*a*d) - co
s(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (cos(4*a*d)*cos(3*a*d) + sin(4*a*d
)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) - ((cos(2*a*d)*sin(3*a*d
) - cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(3*a*d)*cos(2*a*d) + sin
(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m + ((((b*d*cos
(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*co
s(4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b
*d*log(c)) + ((b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*cos(2
*b*d*log(c)) - (b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*sin(
2*b*d*log(c)))*cos(3*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*
a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4
*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log(c)) + ((b*d*cos(3*a*d)*c
os(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*
sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)
))*e^m*m^2 + 2*(((b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*co
s(3*b*d*log(c)) - (b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*s
in(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos
(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(3*a*d)*cos(2*a*d) + b*d*si
n(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(c)) + ((b*d*cos(4*a*d
)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) + (b*d*cos(3*a*
d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*sin(4*b*d*log
(c)) + ((b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*cos(2*b*d*l
og(c)) + (b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*sin(2*b*d*
log(c)))*sin(3*b*d*log(c)))*e^m*m + (((b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(
4*a*d)*sin(3*a*d))*cos(3*b*d*log(c)) - (b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin
(4*a*d)*sin(3*a*d))*sin(3*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(2*a*d)
*sin(3*a*d) - b*d*cos(3*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(3*a*d
)*cos(2*a*d) + b*d*sin(3*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(3*b*d*log(
c)) + ((b*d*cos(4*a*d)*cos(3*a*d) + b*d*sin(4*a*d)*sin(3*a*d))*cos(3*b*d*lo
g(c)) + (b*d*cos(3*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(3*a*d))*sin(3*b*d*l
og(c)))*sin(4*b*d*log(c)) + ((b*d*cos(3*a*d)*cos(2*a*d) + b*d*sin(3*a*d)*si
n(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(3*a*d) - b*d*cos(3*a*d)*s
in(2*a*d))*sin(2*b*d*log(c)))*sin(3*b*d*log(c)))*e^m)*n)*x*x^m*sin(b*d*log(
x^n)))/(((cos(3*a*d)^2 + sin(3*a*d)^2)*cos(3*b*d*log(c))^2 + (cos(3*a*d)^2
+ sin(3*a*d)^2)*sin(3*b*d*log(c))^2)*m^4 + 9*((b^4*d^4*cos(3*a*d)^2 + b^4*d
^4*sin(3*a*d)^2)*cos(3*b*d*log(c))^2 + (b^4*d^4*cos(3*a*d)^2 + b^4*d^4*sin(
3*a*d)^2)*sin(3*b*d*log(c))^2)*n^4 + 4*((cos(3*a*d)^2 + sin(3*a*d)^2)*cos(3
*b*d*log(c))^2 + (cos(3*a*d)^2 + sin(3*a*d)^2)*sin(3*b*d*log(c))^2)*m^3 + 6
*((cos(3*a*d)^2 + sin(3*a*d)^2)*cos(3*b*d*log(c))^2 + (cos(3*a*d)^2 + sin(3
*a*d)^2)*sin(3*b*d*log(c))^2)*m^2 + 10*(((b^2*d^2*cos(3*a*d)^2 + b^2*d^2*si

```
n(3*a*d)^2)*cos(3*b*d*log(c))^2 + (b^2*d^2*cos(3*a*d)^2 + b^2*d^2*sin(3*a*d
)^2)*sin(3*b*d*log(c))^2)*m^2 + (b^2*d^2*cos(3*a*d)^2 + b^2*d^2*sin(3*a*d)^
2)*cos(3*b*d*log(c))^2 + (b^2*d^2*cos(3*a*d)^2 + b^2*d^2*sin(3*a*d)^2)*sin(
3*b*d*log(c))^2 + 2*((b^2*d^2*cos(3*a*d)^2 + b^2*d^2*sin(3*a*d)^2)*cos(3*b*
d*log(c))^2 + (b^2*d^2*cos(3*a*d)^2 + b^2*d^2*sin(3*a*d)^2)*sin(3*b*d*log(c
))^2)*m)*n^2 + (cos(3*a*d)^2 + sin(3*a*d)^2)*cos(3*b*d*log(c))^2 + (cos(3*a
*d)^2 + sin(3*a*d)^2)*sin(3*b*d*log(c))^2 + 4*((cos(3*a*d)^2 + sin(3*a*d)^2
)*cos(3*b*d*log(c))^2 + (cos(3*a*d)^2 + sin(3*a*d)^2)*sin(3*b*d*log(c))^2)*
m)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 200416 vs. 2(256) = 512.

Time = 6.15 (sec) , antiderivative size = 200416, normalized size of antiderivative = 782.88

$$\int (ex)^m \sin^3\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^3,x, algorithm="giac")
```

```
[Out] -1/8*(3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sg
n(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^
2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
- 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3
/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi
*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) -
3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(3/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b
*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(3/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
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1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^ 3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2 *pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b* d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12 *b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/ 2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1 /4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t an(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/ 2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3 *x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2* tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3 /2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d* n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d* log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi* b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1 /2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m* sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 108*b^3*d^3*n^3*x*e^(-1/ 2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2* tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4* pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^ (3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*lo g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) *tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1 /4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x *e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^ 3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 *tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d

*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d
)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*s
gn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x)
 - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 27*b^3*d
^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a
*d)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*
d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/
2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*p
i*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
 - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
3/2*a*d)^2*tan(1/2*a*d) + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) +
 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sg
n(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/

2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-
1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2
*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d
^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 5
4*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c
) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*
d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d
*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(
1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2
*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 27*b
^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b^3*d^

3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(
3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*
n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d) - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/
2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n^3
*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2
- 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(3/2*a*d)^2 + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d
)^2 - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b
^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b^3*d^3*n^3*x
*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b
*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n
^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a

bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^
2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
 - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x)
 - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2
*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 27*b^3*
d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2
*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b
*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi
*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1
/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*
d) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*s
gn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 108*b^
3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*
x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(
1/2*a*d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sg
n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*

sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/

2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x)
- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*
d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1
/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi
*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*
n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x
*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 +
3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
- 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi
*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 12*b^3*d^3
*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*t
an(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3
/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n
*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^

3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2

```
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 -
 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(3/2*a*d)^2*tan(1/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 108*b^3*d^3*n^3*x*
e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/
2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b
*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*ta
n(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2
*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
 - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2
*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2
*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b
*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 27*b^3*d^3
*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*
b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
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1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t an(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1 /2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs (x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi* m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(a bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2 *pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*s gn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*l og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n* log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n *sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m *log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b* d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn (x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b *d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/ 2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m *sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2 *pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(ab s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4 *pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^ (-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*l og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m *n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b *d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log (abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m *sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*b^2*d^2*m*n^2*x*e^ (-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*l og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi* b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1 /2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi* m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sg n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n *log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)

- 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2* pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b *d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta n(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1 /2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d* n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d* log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a* d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b *d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs (c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan (1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2 *m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*p i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d* log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi* m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 54*b^2*d^2*m*n^2* x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(-1/ 2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2* tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/ 4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d *n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2* b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54 *b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t an(3/2*a*d)^2*tan(1/2*a*d) - 216*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1 /2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs (x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi* m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 216*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(a bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo

g(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sg
n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2
*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*p
i*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*t
an(1/2*a*d) + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)
^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*
sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*
b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*b^2*d^2*
m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x
*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-1/2
*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n
*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(ab

s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)

))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(

3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(

abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)

- 1/2*pi*m)^2*tan(3/2*a*d) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d) - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 27*b^3*d^3*n^3*x*e
^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(3/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*
n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b^3*d^3*n^3*
x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(3/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n
^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*p
i*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b^3*d^
3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(3/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/
2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*
n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 108*b^3*d^3*n^3*x*e
^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 108*b^
3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a
*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*
sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*
b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*n^

2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3

```
/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 108*b^3*d^3*n^3*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 108*
b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/
2*a*d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*
b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*
d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(
x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(1/2*
pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 108*b^3*d^3*
n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)
- 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c
) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*d
^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*x
*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x)
 + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(
1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
```

s(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 108*b^3
*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2
*a*d)^2*tan(1/2*a*d) - 216*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*
d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3
/2*a*d)^2*tan(1/2*a*d) + 216*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi
*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*
b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*p
i*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*
x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*
tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*p
i*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2
*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2
*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*
b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)

) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2 *b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2

- 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/
2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) -
3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 5
4*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(
3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a
*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sg
n(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1
/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*ta
n(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*p
i*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo

g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*
sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b
^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*
a*d)^2 - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*
sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2
*a*d)^2 + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*
d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sg
n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2
*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*
a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*
d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/
2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(

3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*
a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*
d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x)
- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2
*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^
2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1
/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2
- 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c
) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*
e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan
(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*
d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +

1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3
/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*p
i*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
- 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sg
n(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*m*n^2*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 54*b^2*d^2*m*
n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*s
gn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d
^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*
a*d) - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*

d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(3/2*a*d) + 8*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/
2*a*d) - 8*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 2*b
^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(3/2*a*d) + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*
pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d
*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 54*b^2*d^2*m*n^2
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 5
4*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c
) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*ta
n(3/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/
2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(3/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/
2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d
*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 -
54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*

tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(

x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(-1
/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 216*b^2*
d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 216*b^2*d^2*m*n^2*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*
b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 54*b^2*d^2*m*
n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d
) - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*s
gn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d
*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn
(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2
*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b
^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) -
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(-1/
2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(3/2*a*d)^2*tan(1/2*a*d) - 216*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) -
1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 216*b^2*d^2*m*n^2
*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan
(1/2*a*d) - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d

*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(
1/2*a*d) + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(
1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*p
i*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^
2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n
*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x
) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*s
gn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^
(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*b^2
*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*
a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b
*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*s

gn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*b
^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) +
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*
pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^
2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2
- 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x)
- 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(-1/2
*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*b*d*m*n
*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*
b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x)
+ 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log

(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s

gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/
2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(
c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a
*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*
d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^
2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*
sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^
2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*
n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6
*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*
a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 -
6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)
^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*
sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^
2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d
)^2*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*

log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))

+ 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*
d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d
)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c
) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*
b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b^3*d^3*n^3*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 +
 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
 - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2 + 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 3*b^3*d^3*n^3*x*e^(-3/2*p
i*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 - 3
*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b^
3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b

*d*log(abs(c)))^2 - 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(a

bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi
*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x
*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) -
1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e
^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 12*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x)
- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d) + 12*b^
3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2
*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 12*b^3*d^3*n^3*x*e^
(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(3/2*a*d) + 12*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 8*b^2*d^2*n^2*x*e^(3/
2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn
(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d

*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
3/2*a*d) - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b
*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 2*
b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
3/2*a*d) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 12*b*d*m^2*n*x*e^(3/2*p
i*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x
) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(3/2*a*d) + 3*b^3*d^3*n^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*a*d)^2 + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 +
27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
 + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b^3*d^3*n
^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2
*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 54*b^2*d^2
*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^
2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(3/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/

2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(
x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2
*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^
2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*m^2*n*x*
e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3
/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*
x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 -

2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4

*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x
*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 +
3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(1
/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(3/2*a*d)^2 - 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 108*b^3*d^3*n^3*x*e^(
-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2
*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 108*b^3*d^3*n^3*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*
d) - 108*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*
sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 216*b^2*d^2*n^2*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(1/2*a*d) + 216*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n

*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d
) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 54*b^2*d^
2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*
d) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*s
gn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*
d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*
a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 5
4*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) -
12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(
3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*
b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)
+ 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1
/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(

abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a
*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(3/2*a*d)^2*tan(1/2*a*d) - 216*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) -
1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 216*b^2*d^2*n^2*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1
/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(
1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/
2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^
(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x)
+ 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*ta
n(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x
) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*
e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(
-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))

```
^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(1/2*
pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 3*b^3*d^3*n^3*x*e^(3/
2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*s
gn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/2*a*d)^2 - 27*b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2
*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d
)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*s
gn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
- 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3
/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d
*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(
3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d
*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*
d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3
/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
```

```
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*
x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 -
2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 +
12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2
*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 +
54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
- 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2
*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*s
gn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sg
```

n(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*
m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*s
gn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x
) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*
b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2
 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
 + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*
pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 -
3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^

2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*
d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2
*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d
*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 +
2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2
+ 8*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
 - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
3/2*a*d)*tan(1/2*a*d)^2 - 8*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 -
 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b
*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2
 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 -
12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*

d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*
b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*p
i*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2
*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^
2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2
*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 -
 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6
*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m^2
*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*b^2*d^
2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3
/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*
d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*
a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*
n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2

```
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 +
 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
 - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1
/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*p
i*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*
d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn
(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(
-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) +
3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sg
n(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*p
i*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-1/2
*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*
d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
 + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2
*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a
*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2
*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sg
n(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/
2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*
```

sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1

/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a
*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
 - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b
*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d
)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d
*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
 - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3
*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*
a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sg
n(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(ab s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan (1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 54*b^2*d^2*m*n^2*x*e^(1/ 2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a bs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*ta n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 54*b^2*d^2*m*n^2*x*e^(- 1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log (abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))* tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(3/2*pi *b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi *m*sgn(x) - 1/2*pi*m)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2* b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2* b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6* b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2* pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d *log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4* pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n* sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m* log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d *n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b *d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x* e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m *log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d* n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2 *b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 2*b^2*d^2*m*n^2* x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs (c)))^2*tan(3/2*a*d) + 8*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b* d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3 /2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m* sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(ab s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 24*b*d*m*n*x*e^(3/2*pi*b*d*n* sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m* log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d *n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi *b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))

+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/
2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d) - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*m^3*x*e^(3
/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x)
 + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 2*b^2*d^2*m
*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))*tan(3/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 54*b^2*d
^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x
) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*
b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*
e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 2
*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)

- 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sg
n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2
 - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*s
gn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*
a*d)^2 + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sg
n(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 24*b*d*
m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 24*b*d*m*n*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) +
 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(3/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*p
i*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2
 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m^3*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) +
3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*
pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/

4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*s
gn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/
2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^3*
x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*
sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(
x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n
*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2
 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*m^3*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*
d) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
2*a*d) + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 216*b^2*d^2*m*n^2*x*e^(1/2

*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 216*b^2*d^2*m
*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) -
 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*b*d*m*n*x*e^
(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/2*a*d) + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(1/2*a*d) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) -
 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n^2*
x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*m*n
^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*b*d*m*n
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan
(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*
d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*

b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*
d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 2
4*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*
a*d)^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*m^3*x*e^(1/2*pi*b*d*n*sgn(
x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*
pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(-1/
2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*
d) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3
/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1
/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*
sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d
*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*
d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2
*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))

*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)

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) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2
- 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2
*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e
^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x
) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a
*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*m^3*x*e^
(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*
sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*b*d*
m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d
)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*
d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6
*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
```

b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*b*d*m*
n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2
 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*
m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^
2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*b*
d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*
tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*
pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/
2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^
2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
- 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*
d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3

/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))

+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)

))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b
*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2
 + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3
/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x
) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn
(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*
n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3
/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*
d)^2*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d
*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(
1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d
*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +

1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*
e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan
(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b
*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^
(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2
*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n
*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*
m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b
*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b^3*d^3*n^3*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x))) + 27*b^3*d^3*n^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*
d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 27*
b^3*d^3*n^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 3*b^3*d^3*n^3*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x))) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +

1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -

1/2*pi*m) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*p
i*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi
*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*
d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*m^2*n*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*p
i*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi
*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
 + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
- 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
- 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/
2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*
pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l

og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi
*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s
gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(1/2*
pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*
n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3
*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*
n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a
*d) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*s
gn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*
sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d
) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn
(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn
(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(-3/2*pi
*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 8*b^2*d^2*n^2*x
*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*b^2*
d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d
) + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c

) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(3/2*a*d) - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*p
i*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(3/2*a*d) - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) +
3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 12*b*d*n*x*e^(3/2*pi*b*d*n*sg
n(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(3/2*a*d) - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d
*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
3/2*a*d) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b
*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(-3/2*pi*
b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(
3/2*a*d) - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*
d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(3/2*a*d) - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d) - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d) - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*
d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 6*m
^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 6*m^2*x*e^(-3/2*pi*b*d
*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s

gn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi *m)*tan(3/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(

abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*n* x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 216*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 216*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn

(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*n*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*
pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 54*b^2*d^2*n^2*x*e^(-1/
2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*
pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b
*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)
- 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2
*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*
sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*
n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)
^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1
/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +

m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 72*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 72*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x* e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log

(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n
*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2*
pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*n*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 +
3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*
a*d)^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d
*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*
a*d)^2 + 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b
*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*b^2*d^2*n^2*x*e^(-3/2*pi*
b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/
2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*
d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*s
gn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2

```
*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi
*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 +
12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^
2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*
e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
 - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3
/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d
*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^
2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
```

(1/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d
*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d
)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e
^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 3*
b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*
d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*
b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*
n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*b^2*d^2*
n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^
2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(
1/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*
sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t

an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n

- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*

b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3
/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
 - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 +
3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn
(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*
e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1
/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s
gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*
d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 -
18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d
)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 12*b*d*n*x*
e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2
*a*d)^2 + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +

m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18
*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi
*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*p
i*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*s
gn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/
2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn
(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2
*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d
)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*
d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 +
6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d
)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*p
i*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x)

+ 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(1/2*
pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*
n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x)
 - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x)
- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 2*b^2*d^2*m*n^2*x*
e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
))) - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c))) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) + 6*b*d*m*n*x*e^(3/2*p
i*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d
*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*s
gn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x
) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(
x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*m*n
^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m) - 54*b^2*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*

pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn
(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*
e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*p
i*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*
sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m) + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s
gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m^3*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*m^3*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d

*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^3*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
+ 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b
*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c
) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m^3*x*e^(-3/2*pi*b*d*
n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 2*b^2*d^2*m*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
+ 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a
*d) + 2*b^2*d^2*m*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d
*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) + 24*b*d
*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) +
 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) +
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2
*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/
2*a*d) - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
- 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(3/2*a*d) - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sg
n(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d) + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*
pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(3/2*a*d) - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d

*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 8*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) -

1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 6*
b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*m^3*x
*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*m
^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2
+ 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*b*d
*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 2*m^3*x*e^
(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 2*m^3*
x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 2
4*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*
d)^2 - 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn
(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(3/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*
sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(3/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*

d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1

/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*m^3*x*e^(
3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*m^3*
x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 +
6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
- 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m*x*e^
(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x)
- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d
)^2 - 54*b^2*d^2*m*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 54*b^2
*d^2*m*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 24*b*d*m*n*x*e^(1
/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 24*b*d*m*n
*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 6*
m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)
+ 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*
a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(

c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 24*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6* m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 72*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 72*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)

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 + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18
*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*p
i*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*b*d*m*n*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*
d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2
*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*s
gn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*s
gn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/2*a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n
*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*
d)^2 - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(
c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) -
3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
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abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log (abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(3/2*pi*b *d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4* pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) *tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*m^3*x *e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m *log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6* m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b* d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2 *pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b* d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2* a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta n(1/2*a*d)^2 - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi* b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2* pi*m)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b *d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d *n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/ 2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m *sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*p i*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4 *pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sg n(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*lo g(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m* sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n *sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m *log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b* d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn (x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d *n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/ 2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/

```
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*m*x*
e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*
n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*
a*d)^2 + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn
(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)
^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
 + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3
/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 18*m*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) +
 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*p
i*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo
g(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2
 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*
```

m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*m^3*x*e^

(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m
*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*ta
n(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sg
n(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi
*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b
*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^
3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a
*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*
sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*
x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan
(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*

b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/

2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/ 4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2* pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs (e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) ^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn (c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi* b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 3*b*d*m^2*n*x*e^(3/2*pi*b*d *n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 3*b*d* m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi* b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo g(abs(c)))^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo g(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs (x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 - 54*b^2*d^2*n^2*x *e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m *log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d* sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi* b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b *d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b* d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2* pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d *log(abs(c)))^2 - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/ 2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n *log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab s(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi* b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b *d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b *d*log(abs(c)))^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2* pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log

(abs(c)))^2 - 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*p
i*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 54*b^2*d^2*n^2*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d
*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b
*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/
2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*
sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 12*b*d*n*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m) - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3
/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*n*x
*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 1
8*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) +
 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a

bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m) - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
 + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 3*b*d*m^2*n*x*e^(3/2*pi*
b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*
b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 - 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*s
gn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x
*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x*e^(-1/2*pi*
b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(3/2*pi*b
*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*s
gn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x)
 + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/
2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d

```
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*
m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*b^2*d^2*n^2*x*e^(3/2*pi*b*d*n*sgn
(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*a*d) + 2*b^2*d^2*n^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b
*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*a*d) + 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*
d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(-3/2*pi*b*d*n
*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)
 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2
*a*d) + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(
c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(3/2*a*d) - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sg
n(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d) - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b
*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(3/2*a*d) - 12*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
 + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 12*b*d*m^2*n*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)*tan(3/2*a*d) + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(3/2*a*d) - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*
d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/
2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 24*m^2*x*e^(3/2*pi*b*d*n*sgn(x)
```

- 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs (x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(ab s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2* pi*m)*tan(3/2*a*d) - 24*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2* pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l og(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a bs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2* pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d *log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a *d) - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta n(3/2*a*d) + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn (c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) ^2*tan(3/2*a*d) + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b *d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2 *pi*m)^2*tan(3/2*a*d) - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2 *pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n* log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2* b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s gn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d* n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2 *b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2 *b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan (3/2*a*d) + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3 /2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 3*b*d*m^2* n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(1/2*pi*b *d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a* d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3 /2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1 /2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b* d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2

*pi*m)*tan(3/2*a*d)^2 + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(3/2*a*d)^2 - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b
*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*p
i*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) -
 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*s
gn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b
*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*x*e^(3/2*pi*
b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b
*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(3/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn
(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^
2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/
2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 3*b*
d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
 + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*

b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 54*b^2*d^2*n^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 54*b^2*d^2*n^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 12*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo

g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/2*a*d) + 12*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*
d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*m^2*n*x*
e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(1/2*a*d) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*
pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
- 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d) - 72*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b
*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
1/2*a*d) + 72*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*n*x
*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 12*b
*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)
+ 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/
2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c
) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/2*a*d) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b
*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(1/2*a*d) + 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1
/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/2*a*d) - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*p
i*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*

pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*
sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*
m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) +
 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(
1/2*a*d) - 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sg
n(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*p
i*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3
/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^2
*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*
b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*
sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 12*b*
d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x)
+ 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(
1/2*a*d) - 72*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(
c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(3/2*a*d)^2*tan(1/2*a*d) + 72*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n
 - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*x*e^(1/2*pi*b*d*n*sgn(x) -
 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*

d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3
/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3
/2*a*d)^2*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m^
2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*p
i*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*
tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(3/2*a*d)^2*tan(1/2*a*d) - 3*b*d*m^2*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*
pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2
- 3*b*d*m^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 - 3*b*d*m^2*n*
x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*
sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d
)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) -
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*
d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
 + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi
*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) -

3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 3*b
*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d
*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/2*a*d)^2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2
*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) -
3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn
(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*
d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3/2
*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 12*b*d*n*
x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 12*
b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^
2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*
a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
 - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +

1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*
pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)
^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d
*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s
gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn
(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^
2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3
/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*m
^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2
- 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
- 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1
/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*
sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d

```
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*
x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(
x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d
)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
- 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-3/2*pi*b*d
*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*
d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d
*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 +
6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/
2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b
*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 -
12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sg
n(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*t
an(1/2*a*d)^2 + 24*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d
*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
```

b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*x*e^(3/2*pi*b*d*n*sgn(
x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi
*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(3/2*a*d)*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m
^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*
pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 -
2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*t
an(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn
(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*
d)^2*tan(1/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^
2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b
*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3
/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d
*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 +
18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*p

i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +

1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3
/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2
*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/
2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*
b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2
- 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*s
gn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2
*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 6*b*d*m*n*x*e^(1/2*pi
*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 6*
b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*
pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*
pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c))) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c))) - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi
*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 6*b*d*m*n*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 -
6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*
b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(
abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(

c)))^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m*x*e^(-1/2*pi*b*d*n*

sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m) - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*
sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(
x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*b*d*m*n*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
- 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn
(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m^3*x*e^(
3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m^3*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi
*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m*x*e^
(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
 + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*
b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m*
x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs
(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 24*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3
/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d) + 24*b*d*m
*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*

d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(
abs(c)))*tan(3/2*a*d) - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*m^3*x*e^(-3/2*pi*b*d*
n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a
*d) + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(3/2*a*d) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 6*m*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 6*m*x*e^(-
3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 24*b*d*
m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(3/2*a*d) + 24*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*
n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 8*m^3*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*m^3*x*e^(-3/2*
pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 24*m*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(3/2*a*d) - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sg
n(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 6*
m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) +
6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo

g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*
d) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2
*a*d) - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) +
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(3/2*a*d) + 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*
sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 6*b*d
*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) +
3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(3/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi
*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*s
gn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2
 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))*tan(3/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d
*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m*x*e^(-1
/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*m*x*e^
(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 6*m*x*
e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 2*m
^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^3*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2
*a*d)^2 - 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c
) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*p

i*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 24*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d

*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 6*m^3*x*e^(1/2*pi
*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) +
 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 24*b*d*m*n*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d
) - 24*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
 + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 24*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*
pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 72*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1
/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(1/2*a*d) + 72*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*
d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 6*m^3
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/2*a*d) + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/
2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m*x*e

```
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*m
^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*m^3*x*e^(
-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b
*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/
2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2
*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e
^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b
*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)
 - 72*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^
2*tan(1/2*a*d) + 72*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d
*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) +
 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sg
n(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d
*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
2*a*d)^2 - 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*
sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 - 6*b*d
*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d
*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*
d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) +
 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi
*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*m^3*x*e^(
-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
```

*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs
(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))*tan(1/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*
pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))^2*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3
/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo
g(abs(c)))^2*tan(1/2*a*d)^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
 + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*m^3*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(
1/2*a*d)^2 + 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*
m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 -
 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)
^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2
*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*
tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*
sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n

*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 24*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 24*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*

b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(-1
/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
+ 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 18
*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2
*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c)
+ 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 3*b*d*m^2*n*x*e^(3/2*p
i*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x))) + 3*b*d*m^2*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 3*b*d*m
^2*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x))) - 3*b*d*m^2*n*x*e^(-3/2*pi*b*d*n*sgn(x
) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x))) + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(
c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(
x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 3*b*d*n*x*e^(
-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1
/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 18*m^
2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 3*b*d*n*x*e^(3
/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*
pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*l
og(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3
/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*m^2*x*e^(3/2*pi*b

*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 12*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab

s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d) + 12*b
*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))*tan(3/2*a*d) - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3
/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 6*m^2*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2
*a*d) + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) -
3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*p
i*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*x*e^(3/2
*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*x*e^(-3/
2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 12*b*d*n*
x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(3/2*a*d) + 12*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/
2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 24*m^2*x*e^(3/2*pi*b*d*
n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*m^2*x*e^(-3/2*pi*b
*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) + 8*x*e^(3/2*pi*b*d*
n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(3/2*a*d) - 8*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d
) - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b
*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*x*e^(3/2*p
i*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 2*x*e^(-3/2

*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) + 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 + 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^2*x*e^(-3/2*pi*b*d *n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))

+ 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 12*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 12*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 72*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 72*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 24*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*

pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m^2*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x)
- 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan
(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c)
+ 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn
(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2
*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d) - 24*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d) + 24*x*e
^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2
*a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*sgn(x)
 + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*t
an(1/2*a*d) - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*
sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 - 3*b*d
*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi
*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*s
gn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 18*
m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*
d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*

d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n
*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*
n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*
n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d
*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - 6*m^2*x*e^(3/2*pi
*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1
/2*a*d)^2 - 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn
(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 18*m^2*x*e^(-1/2*pi*b*d*n*sgn(x)
+ 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*
m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2
*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*
log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n
*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n
- 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
+ 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*
b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*
n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*
d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*
b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan

(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi
*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*
pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2
*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1
/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x
) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2
*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e
^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*
n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2
*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2*tan(3/2*a*d)*tan(1/2*a*d)^2 + 8*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*
b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 8*x*e^(-3/2*pi*b*d*n*sgn
(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e^(3/2*
pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3
/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)*tan(1/2*a*d)^2 - 2*x*e
^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))
)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*
n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +

m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2*tan(1/2*a*d)^2 - 6*b*d*m*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 6*b*d*m*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 6*b*d*m*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 6*b*d*m*n*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6* m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m^3*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) + 2*m^3*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3

/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 24*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 24*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 6*m^3*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 6*m^3*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d *sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 72*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 72*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a*d) + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 - 3*b*d*n*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 3*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 3*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/

```
2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - 3*b*d*n*x*e
^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*
log(abs(e)) + m*log(abs(x))) + 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*
n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 6*m^2*x*e^(-3/2*pi*b*d*n*sgn(x)
 + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) - 18*m^2*x*e^(1/2*p
i*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 18*
m^2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c))) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) -
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 6*x
*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) + 2*x*e^(3/2*pi*b*d
*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/
2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2 - 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n
+ 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x)
- 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m^2*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6
*m^2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c)
 - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) +
6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(-3/2*pi*b*d*n*sgn(x)
 + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*
n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
```

sgn(x) - 1/2*pi*m) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^
(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(3/2*pi*b*d*n
*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2
*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(
c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
+ 6*m^2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) + 6*m^2*x*e^(-3/2*pi*b*
d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(3/2*a*d) - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n +
3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*
d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d) - 2*x*e^(-3/2*pi*b*d*
n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a
*d) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(3/2*a*d) + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d) + 8*x*e^(3/2*pi*b*d*n*
sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 8*x*e^(-3/2*pi*b*d*n*sg
n(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d) - 2*x*e^(3/2*pi*b*d*n*sgn(x
) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d) -
2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(3/2*a*d) - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*p
i*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*lo

g(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 -
6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))*tan(3/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))*tan(3/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n*sgn(x)
 - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 + 6
*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(3/2*a*d)^2 - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 - 2*x*e^(-3/2*pi*b*d*n*sgn(
x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(3/2*a*d)^2 -
 18*m^2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 18*m^2*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n
+ 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d
*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*
a*d) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/2*a*d) + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 24*x*e^(1/2*pi*b*d*
n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 24*x*e^(-1/2*pi*b*d*n
*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 6*x*e^(1/2*pi*b*d*n*sg
n(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)
 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/
2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^
2*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d)^2*tan(1/2*a
*d) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*p

i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*
log(abs(c)))*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 6*x*e^(1/2*pi*b*d*n*
sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^
2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l
og(abs(c)))*tan(1/2*a*d)^2 - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/
2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 6*x*e^(1/2*pi*b*d*n*s
gn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^
2 + 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n -
3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 + 2*x*e^(3/2*pi*b*d*n
*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3
/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(3/2*a*d)*tan(1/2*a*d)^2 + 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*
n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2
*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) +
 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) - 18*m*x*e^(1/2*pi*b*
d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 18*m*x*
e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
))) - 6*m*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m) + 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m) - 18*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*
n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x)
+ 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*m*x*e^(3/2*pi*b
*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(3/2*a*d) + 6*m*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d
*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/
2*a*d) - 18*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) -
 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 18*m*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs

(e)) + m*log(abs(x)))*tan(1/2*a*d) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c))) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^(3/2*pi*b*d*n*sgn(x) - 3/2*pi*b*d*n + 3/2*pi*b*d*sgn(c) - 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) + 2*x*e^(-3/2*pi*b*d*n*sgn(x) + 3/2*pi*b*d*n - 3/2*pi*b*d*sgn(c) + 3/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(3/2*a*d) - 6*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) - 6*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d))/(9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi

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*m)^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d
)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*
n^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^
4*d^4*n^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*l
og(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d
)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9
*b^4*d^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2 + 9*b^4*d^4*n^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 9*b^4*d^4*n^4*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 9*b^4*
d^4*n^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2
+ 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan
(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*
m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4*tan(3/2*a*d)^2*tan(1/2*a*d)^2 +
10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2
 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*
d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/
2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*
n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/
```

4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m
*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*
m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^
2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d
^4*n^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 9*b^4*d^4*n^4*t
an(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 9*b^4*d^4*n^4*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d
*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 9*b^4
*d^4*n^4*tan(3/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan
(3/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2
 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 10*b^2*d
^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(3/2*a*d)^2 + 9*b^4*d^4*n^4*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n
^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b
*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2
*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(
1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs
(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(
c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d
^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d
^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(
3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m*n^2*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +

1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 9*b^4*d^4*n^4 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*m^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l

og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a
*d)^2 + 10*b^2*d^2*m^2*n^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*t
an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*
d)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2
*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3
/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*t
an(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^
2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*
n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m*n^2*tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*
n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 20*
b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a
*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x
)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n
*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m^3*tan
(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3*ta
n(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x))
+ 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*
b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^
2 + 10*b^2*d^2*m^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 +
 10*b^2*d^2*m^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 10
*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 10*b^2*d^2*m^2*n^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(ab
s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*

pi*m)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 *tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*tan(3/2*b*d*n*lo g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2 *m^2*n^2*tan(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b* d*log(abs(c)))^2*tan(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3 /2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta n(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p i*m)^2*tan(3/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + m^ 4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 1 0*b^2*d^2*m^2*n^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log (abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(ab s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a* d)^2 + m^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m* sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n *log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*l og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a *d)^2 + 10*b^2*d^2*n^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*lo g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^ 2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n* log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4*ta n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a* d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi* m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6* m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(3/2*b*d *n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d *log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2 *a*d)^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b *d*log(abs(c)))^2 + 20*b^2*d^2*m*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*lo g(abs(c)))^2 + 20*b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2 *pi*m)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2 *b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m* sgn(x) - 1/2*pi*m)^2 + 20*b^2*d^2*m*n^2*tan(3/2*a*d)^2 + 4*m^3*tan(3/2*b*d* n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*

log(abs(c)))^2*tan(3/2*a*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a
*d)^2 + 4*m^3*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 4*m*tan(3/2*b*d*
n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*
a*d)^2 + 20*b^2*d^2*m*n^2*tan(1/2*a*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/2*a*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m^3*
tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x))
+ 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m^3
*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*
a*d)^2 + 4*m^3*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a
*d)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))
^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/
2*a*d)^2 + 4*m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*ta
n(1/2*a*d)^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^
2 + 10*b^2*d^2*m^2*n^2 + 10*b^2*d^2*n^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d
*log(abs(c)))^2 + 10*b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(ab
s(c)))^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b
*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 10*b^2*d^2*n^2*tan(1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo
g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 10*b^2*d^2*n^2*tan(3/2*a*d)^2 +
m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + m^4
*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 6*m^2*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + m^4*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(3/2*a*d)^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + tan(3/
2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/
2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(3/2*a*d)^2 + 10*b^2*d^2*n^2*tan(1/2*a*d)^2 + m^4*tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + m^4*tan(1/2*b*d*n*log(abs(x)) +

1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) +
3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(1/2*a*d)^2 + m^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(
1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*m^2*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*
d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + m^4*tan(3/2*a
*d)^2*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)
))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*
b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 6*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)
^2*tan(1/2*a*d)^2 + 20*b^2*d^2*m*n^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/
2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 4
*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*
tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)
^2 + 4*m^3*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^
2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 4*m^3*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(a
bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(3/2*a*d)^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c
)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 +
4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 4
*m^3*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 4*
m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 4*m^3*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x))
 + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/2*a*d)^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4*m^3*
tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log
(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m*tan(1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 10*b^2

*d^2*n^2 + m^4*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + m^4*tan (1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*m^2*tan(3/2*b*d*n*log(a bs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs (c)))^2 + m^4*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*t an(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4 *pi*m*sgn(x) - 1/2*pi*m)^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(3/2*b* d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b* d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^4* tan(3/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t an(3/2*a*d)^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta n(3/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b *d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 6*m^2*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + tan(3/2*b*d*n*lo g(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + m ^4*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^ 2*tan(1/2*a*d)^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 *tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/ 2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 6*m^2*tan(1/4 *pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n *log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs (c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 6*m^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d *log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 4*m^3*tan(1/2*b*d*n*log(ab s(x)) + 1/2*b*d*log(abs(c)))^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*lo g(abs(c)))^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 4*m^3*tan (1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m*tan(3/2*b*d*n*log(ab s(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2* pi*m)^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*m^3*tan(3/2*a*d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 4*m*tan(1/2 *b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(3/2*a*d)^2 + 4*m*tan(1/4*pi *m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/2*a*d)^2 + 4*m^3*tan(1/2*a* d)^2 + 4*m*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^ 2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 4*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 4 *m*tan(3/2*a*d)^2*tan(1/2*a*d)^2 + m^4 + 6*m^2*tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 6*m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*tan(1/2*b*d*n*l

```
og(abs(x)) + 1/2*b*d*log(abs(c)))^2 + 6*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(1/2*b*d*n*log(abs(
x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 6*m^2*tan(3/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(abs(
c)))^2*tan(3/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(3/2*a*d)^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(3/
2*a*d)^2 + 6*m^2*tan(1/2*a*d)^2 + tan(3/2*b*d*n*log(abs(x)) + 3/2*b*d*log(a
bs(c)))^2*tan(1/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))
^2*tan(1/2*a*d)^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/2*a*d)^2 + tan(3/2*a*d)^2*tan(1/2*a*d)^2 + 4*m^3 + 4*m*tan(3/2*b*d*n*log
(abs(x)) + 3/2*b*d*log(abs(c)))^2 + 4*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d
*log(abs(c)))^2 + 4*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 4*m*tan(3/2*a*d)^2 + 4*m*tan(1/2*a*d)^2 + 6*m^2 + tan(3/2*b*d*n*log(abs(x)
) + 3/2*b*d*log(abs(c)))^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)
))^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(3/2*a*d)^2
 + tan(1/2*a*d)^2 + 4*m + 1)
```

Mupad [B] (verification not implemented)

Time = 29.61 (sec) , antiderivative size = 161, normalized size of antiderivative = 0.63

$$\int (ex)^m \sin^3\left(d(a+b\log\left(cx^n\right))\right)\,dx = \frac{x\,\mathrm{e}^{-a\,d\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,d\,1\mathrm{i}}}\,{\left(e\,x\right)}^m\,3\mathrm{i}}{8\,m+8-b\,d\,n\,8\mathrm{i}}+\frac{3\,x\,\mathrm{e}^{a\,d\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,d\,1\mathrm{i}}\,{\left(e\,x\right)}^m}{m\,8\mathrm{i}-8\,b\,d\,n+8\mathrm{i}} - \frac{x\,\mathrm{e}^{-a\,d\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,d\,3\mathrm{i}}}\,{\left(e\,x\right)}^m\,1\mathrm{i}}{8\,m+8-b\,d\,n\,24\mathrm{i}}-\frac{x\,\mathrm{e}^{a\,d\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,d\,3\mathrm{i}}\,{\left(e\,x\right)}^m}{m\,8\mathrm{i}-24\,b\,d\,n+8\mathrm{i}}$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^3*(e*x)^m,x)
```

```
[Out] (x*exp(-a*d*1i)/(c*x^n)^(b*d*1i)*(e*x)^m*3i)/(8*m - b*d*n*8i + 8) + (3*x*ex
p(a*d*1i)*(c*x^n)^(b*d*1i)*(e*x)^m)/(m*8i - 8*b*d*n + 8i) - (x*exp(-a*d*3i)
/(c*x^n)^(b*d*3i)*(e*x)^m*1i)/(8*m - b*d*n*24i + 8) - (x*exp(a*d*3i)*(c*x^n
)^(b*d*3i)*(e*x)^m)/(m*8i - 24*b*d*n + 8i)
```

3.72 $\int (ex)^m \sin^2(d(a+b\log(cx^n)))\,dx$

Optimal result 1201
Rubi [A] (verified) 1201
Mathematica [C] (verified) 1202
Maple [F] 1203
Fricas [A] (verification not implemented) 1203
Sympy [F] 1204
Maxima [B] (verification not implemented) 1204
Giac [B] (verification not implemented) 1206
Mupad [B] (verification not implemented) 1229

Optimal result

Integrand size = 21, antiderivative size = 154

$$\int (ex)^m \sin^2(d(a+b\log(cx^n)))\,dx = \frac{2b^2d^2n^2(ex)^{1+m}}{e(1+m)\left((1+m)^2+4b^2d^2n^2\right)} - \frac{2bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)} + \frac{(1+m)(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)}$$

```
[Out] 2*b^2*d^2*n^2*(e*x)^(1+m)/e/(1+m)/((1+m)^2+4*b^2*d^2*n^2)-2*b*d*n*(e*x)^(1+
m)*cos(d*(a+b*ln(c*x^n)))*sin(d*(a+b*ln(c*x^n)))/e/((1+m)^2+4*b^2*d^2*n^2)+
(1+m)*(e*x)^(1+m)*sin(d*(a+b*ln(c*x^n)))^2/e/((1+m)^2+4*b^2*d^2*n^2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 154, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.095$, Rules used = {4575, 32}

$$\int (ex)^m \sin^2(d(a+b\log(cx^n)))\,dx = \frac{(m+1)(ex)^{m+1}\sin^2(d(a+b\log(cx^n)))}{e\left(4b^2d^2n^2+(m+1)^2\right)} - \frac{2bdn(ex)^{m+1}\sin(d(a+b\log(cx^n)))\cos(d(a+b\log(cx^n)))}{e\left(4b^2d^2n^2+(m+1)^2\right)} + \frac{2b^2d^2n^2(ex)^{m+1}}{e(m+1)\left(4b^2d^2n^2+(m+1)^2\right)}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] (2*b^2*d^2*n^2*(e*x)^(1 + m))/(e*(1 + m)*((1 + m)^2 + 4*b^2*d^2*n^2)) - (2*
b*d*n*(e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])]*Sin[d*(a + b*Log[c*x^n])])/(e
*((1 + m)^2 + 4*b^2*d^2*n^2)) + ((1 + m)*(e*x)^(1 + m)*Sin[d*(a + b*Log[c*x
^n])]^2)/(e*((1 + m)^2 + 4*b^2*d^2*n^2))
```

Rule 32

```
Int[((a_.) + (b_.)*(x_))^(m_), x_Symbol] :> Simp[(a + b*x)^(m + 1)/(b*(m +
1)), x] /; FreeQ[{a, b, m}, x] && NeQ[m, -1]
```

Rule 4575

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] - Simp[b*d*n*p*(e*x)^(m + 1)*Cos[d*(a + b*Log[c*x^n])]*(Sin[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= -\frac{2bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)} \\
&\quad+\frac{(1+m)(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)}+\frac{\left(2b^2d^2n^2\right)\int(ex)^m\,dx}{(1+m)^2+4b^2d^2n^2} \\
&= \frac{2b^2d^2n^2(ex)^{1+m}}{e(1+m)\left((1+m)^2+4b^2d^2n^2\right)} \\
&\quad-\frac{2bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))\sin(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)} \\
&\quad+\frac{(1+m)(ex)^{1+m}\sin^2(d(a+b\log(cx^n)))}{e\left((1+m)^2+4b^2d^2n^2\right)}
\end{aligned}$$

Mathematica [C] (verified)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 102, normalized size of antiderivative = 0.66

$$\int (ex)^m\sin^2(d(a+b\log(cx^n)))\,dx =$$

$$-\frac{x(ex)^m\left(-1-2m-m^2-4b^2d^2n^2+(1+m)^2\cos(2d(a+b\log(cx^n)))+2bd(1+m)n\sin(2d(a+b\log(\right.}{2(1+m)(1+m-2ibdn)(1+m+2ibdn)}$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/2*(x*(e*x)^m*(-1 - 2*m - m^2 - 4*b^2*d^2*n^2 + (1 + m)^2*Cos[2*d*(a + b*
Log[c*x^n])] + 2*b*d*(1 + m)*n*Sin[2*d*(a + b*Log[c*x^n])]))/((1 + m)*(1 +
m - (2*I)*b*d*n)*(1 + m + (2*I)*b*d*n))
```

Maple [F]

$$\int (ex)^m \sin \left(d(a+b\ln \left(c\,x^n\right))\right)^2 dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^2,x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 155, normalized size of antiderivative = 1.01

$$\int (ex)^m \sin^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = -\frac{2\,(bdm+bd)nx\cos\left(bdn\log\left(x\right)+bd\log\left(c\right)+ad\right)e^{(m\log(e)+m\log(x))}\sin\left(bdn\log\left(x\right)+bd\log\left(c\right)+ad\right)+}{m^3+4\left(b^2d^2m+b^2d^2\right)}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
```

```
[Out] -(2*(b*d*m + b*d)*n*x*cos(b*d*n*log(x) + b*d*log(c) + a*d)*e^(m*log(e) + m*
log(x))*sin(b*d*n*log(x) + b*d*log(c) + a*d) + ((m^2 + 2*m + 1)*x*cos(b*d*n
*log(x) + b*d*log(c) + a*d)^2 - (2*b^2*d^2*n^2 + m^2 + 2*m + 1)*x)*e^(m*log
(e) + m*log(x)))/(m^3 + 4*(b^2*d^2*m + b^2*d^2)*n^2 + 3*m^2 + 3*m + 1)
```

Sympy [F]

$$\int (ex)^m \sin^2(d(a+b\log(cx^n)))\,dx = -\frac{\begin{cases} \frac{\log(x)\cos(2ad)}{e} & \text{for } b=0 \wedge m=- \\ \int (ex)^m \cos\left(-2ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=-\frac{i(m+1)}{2dn} \\ \int (ex)^m \cos\left(2ad+\frac{im\log(cx^n)}{n}+\frac{i\log(cx^n)}{n}\right)dx & \text{for } b=\frac{i(m+1)}{2dn} \\ \frac{2bdnx(ex)^m\sin(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1}+\frac{mx(ex)^m\cos(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1}+\frac{x(ex)^m\cos(2ad+2bd\log(cx^n))}{4b^2d^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}}{2} + \frac{\begin{cases} \frac{(ex)^{m+1}}{m+1} & \text{for } m\neq -1 \\ \log(ex) & \text{otherwise} \end{cases}}{2e}$$

[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**2,x)

[Out] -Piecewise((log(x)*cos(2*a*d)/e, Eq(b, 0) & Eq(m, -1)), (Integral((e*x)**m*cos(-2*a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/(2*d*n))), (Integral((e*x)**m*cos(2*a*d + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, I*(m + 1)/(2*d*n))), (2*b*d*n*x*(e*x)**m*sin(2*a*d + 2*b*d*log(c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1) + m*x*(e*x)**m*cos(2*a*d + 2*b*d*log(c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1) + x*(e*x)**m*cos(2*a*d + 2*b*d*log(c*x**n))/(4*b**2*d**2*n**2 + m**2 + 2*m + 1), True))/2 + Piecewise(((e*x)**(m + 1)/(m + 1), Ne(m, -1)), (log(e*x), True))/(2*e)

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 2551 vs. $2(154) = 308$.

Time = 0.32 (sec) , antiderivative size = 2551, normalized size of antiderivative = 16.56

$$\int (ex)^m \sin^2(d(a+b\log(cx^n)))\,dx = \text{Too large to display}$$

[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")

[Out] -1/4*(((((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + cos(2*b*d*log(c))*cos(2*a*d) - ((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)) - sin(2*b*d*log(c))*sin(2*a*d))*e^m*m^2 + 2*(((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b

```
*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(
c)))*cos(4*b*d*log(c)) + cos(2*b*d*log(c))*cos(2*a*d) - ((cos(2*a*d)*sin(4*
a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) +
sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)) - sin(2*b*d*log
(c))*sin(2*a*d))*e^m*m + (((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*
cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b
*d*log(c)))*cos(4*b*d*log(c)) + cos(2*b*d*log(c))*cos(2*a*d) - ((cos(2*a*d)
*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (cos(4*a*d)*cos(2*
a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)) - sin(2*
b*d*log(c))*sin(2*a*d))*e^m + 2*((b*d*cos(2*a*d)*sin(2*b*d*log(c)) + b*d*co
s(2*b*d*log(c))*sin(2*a*d) + ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*s
in(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*
sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a
*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*
a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m
*m + (b*d*cos(2*a*d)*sin(2*b*d*log(c)) + b*d*cos(2*b*d*log(c))*sin(2*a*d) +
 ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c))
 - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)
))*cos(4*b*d*log(c)) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a
*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*
a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m)*n)*x*x^m*cos(2*b*d*log(x^n
)) - ((((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) -
 (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*cos(4*b
*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log
(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*s
in(4*b*d*log(c)) + cos(2*a*d)*sin(2*b*d*log(c)) + cos(2*b*d*log(c))*sin(2*a
*d))*e^m*m^2 + 2*(((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*cos(2*b*
d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c
)))*cos(4*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*co
s(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*sin(2*b*d
*log(c)))*sin(4*b*d*log(c)) + cos(2*a*d)*sin(2*b*d*log(c)) + cos(2*b*d*log(
c))*sin(2*a*d))*e^m*m + (((cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*c
os(2*b*d*log(c)) - (cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a*d))*sin(2*b*
d*log(c)))*cos(4*b*d*log(c)) + ((cos(4*a*d)*cos(2*a*d) + sin(4*a*d)*sin(2*a
*d))*cos(2*b*d*log(c)) + (cos(2*a*d)*sin(4*a*d) - cos(4*a*d)*sin(2*a*d))*si
n(2*b*d*log(c)))*sin(4*b*d*log(c)) + cos(2*a*d)*sin(2*b*d*log(c)) + cos(2*b
*d*log(c))*sin(2*a*d))*e^m - 2*((b*d*cos(2*b*d*log(c))*cos(2*a*d) - b*d*sin
(2*b*d*log(c))*sin(2*a*d) + ((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*si
n(2*a*d))*cos(2*b*d*log(c)) + (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*s
in(2*a*d))*sin(2*b*d*log(c)))*cos(4*b*d*log(c)) - ((b*d*cos(2*a*d)*sin(4*a*
d) - b*d*cos(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a
*d) + b*d*sin(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m*
m + (b*d*cos(2*b*d*log(c))*cos(2*a*d) - b*d*sin(2*b*d*log(c))*sin(2*a*d) +
((b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a*d))*cos(2*b*d*log(c))
+ (b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*d))*sin(2*b*d*log(c))
```

```
)*cos(4*b*d*log(c)) - ((b*d*cos(2*a*d)*sin(4*a*d) - b*d*cos(4*a*d)*sin(2*a*
d))*cos(2*b*d*log(c)) - (b*d*cos(4*a*d)*cos(2*a*d) + b*d*sin(4*a*d)*sin(2*a
*d))*sin(2*b*d*log(c)))*sin(4*b*d*log(c)))*e^m)*n)*x*x^m*sin(2*b*d*log(x^n)
) - 2*(((cos(2*a*d)^2 + sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (cos(2*a*d)^2 +
 sin(2*a*d)^2)*sin(2*b*d*log(c))^2)*e^m*m^2 + 4*((b^2*d^2*cos(2*a*d)^2 + b^
2*d^2*sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (b^2*d^2*cos(2*a*d)^2 + b^2*d^2*s
in(2*a*d)^2)*sin(2*b*d*log(c))^2)*e^m*n^2 + 2*((cos(2*a*d)^2 + sin(2*a*d)^2
)*cos(2*b*d*log(c))^2 + (cos(2*a*d)^2 + sin(2*a*d)^2)*sin(2*b*d*log(c))^2)*
e^m*m + ((cos(2*a*d)^2 + sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (cos(2*a*d)^2
+ sin(2*a*d)^2)*sin(2*b*d*log(c))^2)*e^m)*x*x^m)/(((cos(2*a*d)^2 + sin(2*a*
d)^2)*cos(2*b*d*log(c))^2 + (cos(2*a*d)^2 + sin(2*a*d)^2)*sin(2*b*d*log(c))
^2)*m^3 + 3*((cos(2*a*d)^2 + sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (cos(2*a*d
)^2 + sin(2*a*d)^2)*sin(2*b*d*log(c))^2)*m^2 + 4*((b^2*d^2*cos(2*a*d)^2 + b
^2*d^2*sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (b^2*d^2*cos(2*a*d)^2 + b^2*d^2*
sin(2*a*d)^2)*sin(2*b*d*log(c))^2 + ((b^2*d^2*cos(2*a*d)^2 + b^2*d^2*sin(2*
a*d)^2)*cos(2*b*d*log(c))^2 + (b^2*d^2*cos(2*a*d)^2 + b^2*d^2*sin(2*a*d)^2)
*sin(2*b*d*log(c))^2)*m)*n^2 + (cos(2*a*d)^2 + sin(2*a*d)^2)*cos(2*b*d*log(
c))^2 + (cos(2*a*d)^2 + sin(2*a*d)^2)*sin(2*b*d*log(c))^2 + 3*((cos(2*a*d)^
2 + sin(2*a*d)^2)*cos(2*b*d*log(c))^2 + (cos(2*a*d)^2 + sin(2*a*d)^2)*sin(2
*b*d*log(c))^2)*m)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 30585 vs. 2(154) = 308.

Time = 1.28 (sec) , antiderivative size = 30585, normalized size of antiderivative = 198.60

$$\int (ex)^m \sin^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
```

```
[Out] -1/4*(8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) +
 b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*(abs(e)*abs(x))^m*b
^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n
^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
```

```
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d)^2 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(a*d)^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*(abs(e)*abs(x))^m*b^2*d^2
*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*b*d*n*x*e^(-
pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 8*(abs(e)*abs(
x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 +
 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b*d*n
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*n*
```

x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi

```
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d) + 16*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sg
n(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)*tan(a*d) - 16*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d) + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*
log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c
) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 -
 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*
d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*
d)^2 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*m*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(a*d)^2 - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*s
gn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b
*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
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g(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 + 4*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi
*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c
)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(a*d)^2 - 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2 + 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x*tan(pi*m*floor(-1/4*s
gn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m
*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*n*x*e
^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*(abs(e)*abs(x))^m*b^
2*d^2*n^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*n*x
*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*n*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x
) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + p
i*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c)
+ pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(a
bs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s

gn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - p
i*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*s
gn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*m^2*x*e^(pi*b*d*n*sgn(x) -
 pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*
b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*l
og(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1
) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d
*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(
abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d) + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b
*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b
*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*m^2*x*e^(pi*b
*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs
(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*
pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*m^2*x*e^(-pi*b*d*n
*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 8*(abs(e)*abs(x))^m*b^2*
d^2*n^2*x*tan(a*d)^2 - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*l
og(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x)
+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*

d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 2*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn

(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2 *m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 4*b*d*m*n*x*e^(-pi*

b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 + 4*(abs(e)*abs(
x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sg
n(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*ta
n(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) +
b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*b*d*m*n*
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^
2 - 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*fl
oor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*m
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*(abs(e)
*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) -
pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(a*d)^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 4*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4
*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*m*x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 - 8*(abs(e)*abs(x))^m*b^2*d^2*n^2*x + 4*b*d*n*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*n
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1

```
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d
*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b
*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m) - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*n*x*e^(pi*b*d*n*s
gn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*
tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*b
*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m) + 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
 - 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*b*d*n*x*e^(
pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
 + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2
*(abs(e)*abs(x))^m*m^2*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*x*e^(pi*b*d*n*sgn(x) - p
i*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n
*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*(abs(e)*abs(x))^m*
m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*
```

pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d) + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 16*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 16*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)

```
 - 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn
(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)*tan(a*d) + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs
(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d) - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d) - 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n
 + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs
(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(a*d) + 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*x*e^(pi*b*
d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(
x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) -
1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 4*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(
x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*b*d*n*x*e^(pi*b*d*n*sgn(x)
 - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*
d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 4*b*d*n*x*e^(-pi*b*d*n*sgn(
x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan
(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d)^2 - 2*(abs(e)*abs(x))^m*m^2*
x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^2*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^2*x*e^(-pi*b*d*
n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 2*(abs(e)*abs(x)
)^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floo
r(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2*tan(a*d)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) +
pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sg
n(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*
```

(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))
)^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*n*x*e^(pi*b*d*n
*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*b*d*n*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2
- 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*m^2*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)*tan(a*d)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d)^2 - 2*(abs(e)*abs(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn
(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 2*(abs(e)*abs(x))^m*x*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(a*d)^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) -
 pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x
*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*(abs(e)*abs(x))^m*x*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn

(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 4*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b*d*m*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 4*b*d*m*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan (a*d) - 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) + 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 4*(abs(e)*abs(x))^m*m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 8*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 - 4*(abs(e)*abs(x))^m*m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x)

+ pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b*d*n*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c))) + 4*b*d*n*x*e^(-pi*b*d*n*sg
n(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*t
an(b*d*n*log(abs(x)) + b*d*log(abs(c))) - 2*(abs(e)*abs(x))^m*m^2*x*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2 - m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2 + 2*(abs(e)*abs(x))^m*m^2*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4
*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*x*e^(p
i*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*
d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(
e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*
(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*flo
or(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(
abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 - x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*t
an(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c
) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m) + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m) + 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*m^2*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m) + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
 - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(
abs(c)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m) - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*(abs(e)*abs
(x))^m*m^2*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^2*x*e^
(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - m^2*x*e^(-

pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*(abs(e)*a
bs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d
*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(
-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(pi*b*d*n*sgn(x)
- pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - x*e^(-p
i*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2 + 4*b*d*n*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(a*d) + 4*b*d*n*x*e^(-pi*b*d*n*sgn(x) + p
i*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)
- 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) -
4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 4
*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d) - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan
(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(
x) - 1/2*pi*m)^2*tan(a*d) + 4*m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*
sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n -
 pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*
n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)*tan(a*d) + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d +
 m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*x*e^(pi*b*d*
n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)
))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*ta
n(a*d) - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*lo
g(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1

/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)*tan(a*d) + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d
*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d
) + 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d) - 2*(abs(e)*abs(x))^m*m^2*
x*tan(a*d)^2 - m^2*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - m^2*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)
^2 - 2*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a
*d)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^
2 + x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 +
 2*(abs(e)*abs(x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(pi*b*d*n*sgn(x
) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(a*d)^2 - x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(
c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d)^2 + 4*x*e^(-pi*b*d*n*sgn(x) +
pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)*tan(a*d)^2 - 2*(abs(e)*abs(x))^m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*s
gn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi
*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 - 4*(abs(e)*abs(x))^m*m*x*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
 pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(
x)) + b*d*log(abs(c)))^2 - 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sg
n(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))^2 + 4*(abs(e)*abs(x))^m*m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*s
gn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*x*e^(pi*
b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*
sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e)
 - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 8*m*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +

```
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 8*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*
b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x))
+ b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*(a
bs(e)*abs(x))^m*m*x*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2
*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m
*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e))
+ m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 8*m*
x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) +
m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) - 8*m*x*e^
(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*l
og(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*d) + 8*m*x*e^(pi
*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) - 8*m*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(a*d) -
4*(abs(e)*abs(x))^m*m*x*tan(a*d)^2 - 2*m*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n +
pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 - 2*m*x*
e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m
*log(abs(x)))*tan(a*d)^2 - 2*(abs(e)*abs(x))^m*m^2*x + m^2*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) +
 m^2*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x))) - 2*(abs(e)*abs(x))^m*x*tan(b*d*n*log(abs(x)) + b*d*lo
g(abs(c)))^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m
*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 -
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 2*(abs(e)*abs(
x))^m*x*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(
c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sg
n(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*
log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 4*x*e^(-pi
*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m) - 2*(abs(e)*abs(x))^m*x*tan(1/4*pi*m*sgn(e) + 1/4*p
i*m*sgn(x) - 1/2*pi*m)^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c)
- pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sg
n(x) - 1/2*pi*m)^2 - x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*
b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 - 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d
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+ m*log(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*t
an(a*d) - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))*tan(a*
d) + 4*x*e^(pi*b*d*n*sgn(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan
(a*d) - 4*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log
(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(a*d) - 2*(abs(e)*abs(x))^m*x*tan(a*d)^2 - x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(a*d)^2 -
x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) +
 m*log(abs(x)))*tan(a*d)^2 - 4*(abs(e)*abs(x))^m*m*x + 2*m*x*e^(pi*b*d*n*sg
n(x) - pi*b*d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) +
 2*m*x*e^(-pi*b*d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(
e)) + m*log(abs(x))) - 2*(abs(e)*abs(x))^m*x + x*e^(pi*b*d*n*sgn(x) - pi*b*
d*n + pi*b*d*sgn(c) - pi*b*d + m*log(abs(e)) + m*log(abs(x))) + x*e^(-pi*b*
d*n*sgn(x) + pi*b*d*n - pi*b*d*sgn(c) + pi*b*d + m*log(abs(e)) + m*log(abs(
x))))/(4*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 +
 4*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d
^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m*n^2*tan(b*d*
n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
+ 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d
^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1
/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m*n^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d
^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*tan(b*d*n*lo
g(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
 + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n
^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*tan(pi*m*floor(-1/4*sgn(e
) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m*n^2
*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/
4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2
*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4
*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
```

*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m*n^2*tan(b*d*n*log(a
bs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*m*n^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d)^2 + 4*b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*
pi*m)^2*tan(a*d)^2 + m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2
 + 4*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2 + 4*b^2*d^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*
m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*tan(pi*m*floor(-1/
4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*tan(b
*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 4*b^2*d^2*n^2*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 3*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 4*b^2*d^2*m*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*b
^2*d^2*m*n^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*m*n^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 4*b^2*d^2*m*n^2*tan(a*d)^2 + m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^
2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m
*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^3*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^3
*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*ta
n(a*d)^2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d
^2*n^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 4*b^2*d^2*n^2*tan(pi*m*
floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)^2 + 4*b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2 + 3*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 4*b^2*d^2*n^2*tan(a*d
)^2 + 3*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*
sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(a*d)^2 + 3*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*
sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 3*m^2*tan(pi*m*floor(-1
/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)

^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*m*n^2 + m^3*tan(b*d
*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^3*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)^2 + m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-
1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^3*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + m^3*tan(pi*m*floor(-1/4*sgn(e) -
 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)
^2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn
(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan
(a*d)^2 + m^3*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^
2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 3*m*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + 4*b^2*d^2*n^2 + 3*m^
2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1
/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn
(x) - 1/2*pi*m)^2 + 3*m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/
4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*
m*sgn(x) - 1/2*pi*m)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*
m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m^2*ta
n(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 3*m^2*tan(pi*m*floor(
-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*
m)^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor
(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(a*d)^2 + 3*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^
2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e)
- 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4
*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^3*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2 + m^3*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x)
 + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m*tan(b*d*n*log
(abs(x)) + b*d*log(abs(c)))^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1)
+ 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^3*tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(
c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m*tan(pi*m*f
loor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/

```
2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^3*tan(a*d
)^2 + 3*m*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(a*d)^2 + 3*m*tan(p
i*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)^2*tan(a*d)^2 + 3*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)^2*tan(a*d)^2 + 3*m^2*tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2 + 3*
m^2*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi
*m*sgn(x) - 1/2*pi*m)^2 + tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(pi
*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2 + 3*m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 +
 tan(b*d*n*log(abs(x)) + b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*
sgn(x) - 1/2*pi*m)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*p
i*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*s
gn(x) - 1/2*pi*m)^2 + 3*m^2*tan(a*d)^2 + tan(b*d*n*log(abs(x)) + b*d*log(ab
s(c)))^2*tan(a*d)^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) + 1/4*pi
*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(a*d)^2 + m^3 + 3*m*tan(b*d*n*log(abs(x)
) + b*d*log(abs(c)))^2 + 3*m*tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 3*m*tan(a*d)^2 + 3*m^2 + tan(b*d*n*log(ab
s(x)) + b*d*log(abs(c)))^2 + tan(pi*m*floor(-1/4*sgn(e) - 1/4*sgn(x) + 1) +
 1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(1/4*pi*m*sgn(e) + 1/
4*pi*m*sgn(x) - 1/2*pi*m)^2 + tan(a*d)^2 + 3*m + 1)
```

Mupad [B] (verification not implemented)

Time = 28.78 (sec) , antiderivative size = 95, normalized size of antiderivative = 0.62

$$\int (ex)^m \sin^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \frac{x\,(e\,x)^m}{2\,m+2} - \frac{x\,\mathrm{e}^{a\,d\,2\mathrm{i}}\,\left(c\,x^n\right)^{b\,d\,2\mathrm{i}}\,(e\,x)^m}{4\,m+4+b\,d\,n\,8\mathrm{i}} - \frac{x\,\mathrm{e}^{-a\,d\,2\mathrm{i}}\,\frac{1}{\left(c\,x^n\right)^{b\,d\,2\mathrm{i}}}\,(e\,x)^m\,1\mathrm{i}}{m\,4\mathrm{i}+8\,b\,d\,n+4\mathrm{i}}$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^2*(e*x)^m,x)

[Out] (x*(e*x)^m)/(2*m + 2) - (x*exp(a*d*2i)*(c*x^n)^(b*d*2i)*(e*x)^m)/(4*m + b*d
*n*8i + 4) - (x*exp(-a*d*2i)/(c*x^n)^(b*d*2i)*(e*x)^m*1i)/(m*4i + 8*b*d*n +
 4i)
```

3.73 $\int (ex)^m \sin(d(a+b\log(cx^n)))\,dx$

Optimal result 1230
Rubi [A] (verified) 1230
Mathematica [A] (verified) 1231
Maple [F] 1231
Fricas [A] (verification not implemented) 1231
Sympy [F] 1232
Maxima [B] (verification not implemented) 1232
Giac [B] (verification not implemented) 1233
Mupad [B] (verification not implemented) 1238

Optimal result

Integrand size = 19, antiderivative size = 92

$$\int (ex)^m \sin(d(a+b\log(cx^n)))\,dx = -\frac{bdn(ex)^{1+m}\cos(d(a+b\log(cx^n)))}{e((1+m)^2+b^2d^2n^2)} + \frac{(1+m)(ex)^{1+m}\sin(d(a+b\log(cx^n)))}{e((1+m)^2+b^2d^2n^2)}$$

```
[Out] -b*d*n*(e*x)^(1+m)*cos(d*(a+b*ln(c*x^n)))/e/((1+m)^2+b^2*d^2*n^2)+(1+m)*(e*
x)^(1+m)*sin(d*(a+b*ln(c*x^n)))/e/((1+m)^2+b^2*d^2*n^2)
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 92, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}} = 0.053$, Rules used = {4573}

$$\int (ex)^m \sin(d(a+b\log(cx^n)))\,dx = \frac{(m+1)(ex)^{m+1}\sin(d(a+b\log(cx^n)))}{e(b^2d^2n^2+(m+1)^2)} - \frac{bdn(ex)^{m+1}\cos(d(a+b\log(cx^n)))}{e(b^2d^2n^2+(m+1)^2)}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])],x]
```

```
[Out] -((b*d*n*(e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])])/(e*((1 + m)^2 + b^2*d^2*n
^2))) + ((1 + m)*(e*x)^(1 + m)*Sin[d*(a + b*Log[c*x^n])])/(e*((1 + m)^2 + b
^2*d^2*n^2))
```

Rule 4573

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
```

```
*n^2 + e*(m + 1)^2)), x] - Simp[b*d*n*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{bdn(ex)^{1+m}\cos\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+b^2d^2n^2\right)}+\frac{(1+m)(ex)^{1+m}\sin\left(d(a+b\log\left(cx^n\right))\right)}{e\left((1+m)^2+b^2d^2n^2\right)}$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 63, normalized size of antiderivative = 0.68

$$\int (ex)^m\sin\left(d(a+b\log\left(cx^n\right))\right)\,dx = \frac{x(ex)^m\left(-bdn\cos\left(d(a+b\log\left(cx^n\right))\right)+(1+m)\sin\left(d(a+b\log\left(cx^n\right))\right)\right)}{1+2m+m^2+b^2d^2n^2}$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])],x]
[Out] (x*(e*x)^m*(-(b*d*n*Cos[d*(a + b*Log[c*x^n])]) + (1 + m)*Sin[d*(a + b*Log[c
*x^n])]))/(1 + 2*m + m^2 + b^2*d^2*n^2)
```

Maple [F]

$$\int (ex)^m\sin\left(d(a+b\ln\left(c\,x^n\right))\right)dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n))),x)
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n))),x)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 86, normalized size of antiderivative = 0.93

$$\int (ex)^m\sin\left(d(a+b\log\left(cx^n\right))\right)\,dx = -\frac{bdnx\cos\left(bdn\log\left(x\right)+bd\log\left(c\right)+ad\right)e^{(m\log(e)+m\log(x))}-(m+1)xe^{(m\log(e)+m\log(x))}\sin\left(bdn\log\left(x\right)+b\right.}{b^2d^2n^2+m^2+2\,m+1}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n))),x, algorithm="fricas")
[Out] -(b*d*n*x*cos(b*d*n*log(x) + b*d*log(c) + a*d)*e^(m*log(e) + m*log(x)) - (m
 + 1)*x*e^(m*log(e) + m*log(x))*sin(b*d*n*log(x) + b*d*log(c) + a*d))/(b^2*
d^2*n^2 + m^2 + 2*m + 1)
```

Sympy [F]

$$\int (ex)^m \sin \left(d(a+b\log \left(cx^n\right))\right) \, dx = \int (ex)^m \sin \left(ad+bd\log \left(cx^n\right)\right) dx$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n))),x)
[Out] Integral((e*x)**m*sin(a*d + b*d*log(c*x**n)), x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1263 vs. $2(92) = 184$.

Time = 0.27 (sec) , antiderivative size = 1263, normalized size of antiderivative = 13.73

$$\int (ex)^m \sin \left(d(a+b\log \left(cx^n\right))\right) \, dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] 1/2*(((((cos(a*d)*sin(2*a*d) - cos(2*a*d)*sin(a*d))*cos(b*d*log(c)) - (cos(
2*a*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) +
 ((cos(2*a*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (cos(a*d)*s
in(2*a*d) - cos(2*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d*log(c)) + cos(a
*d)*sin(b*d*log(c)) + cos(b*d*log(c))*sin(a*d))*e^m*m - (b*d*cos(b*d*log(c)
)*cos(a*d) - b*d*sin(b*d*log(c))*sin(a*d) + ((b*d*cos(2*a*d)*cos(a*d) + b*d
*sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (b*d*cos(a*d)*sin(2*a*d) - b*d*cos(
2*a*d)*sin(a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) - ((b*d*cos(a*d)*sin(2*
a*d) - b*d*cos(2*a*d)*sin(a*d))*cos(b*d*log(c)) - (b*d*cos(2*a*d)*cos(a*d)
+ b*d*sin(2*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d*log(c)))*e^m*n + (((c
os(a*d)*sin(2*a*d) - cos(2*a*d)*sin(a*d))*cos(b*d*log(c)) - (cos(2*a*d)*cos
(a*d) + sin(2*a*d)*sin(a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) + ((cos(2*a
*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (cos(a*d)*sin(2*a*d)
- cos(2*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d*log(c)) + cos(a*d)*sin(b*
d*log(c)) + cos(b*d*log(c))*sin(a*d))*e^m)*x*x^m*cos(b*d*log(x^n)) + ((((co
s(2*a*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (cos(a*d)*sin(2*
a*d) - cos(2*a*d)*sin(a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) + cos(b*d*lo
g(c))*cos(a*d) - ((cos(a*d)*sin(2*a*d) - cos(2*a*d)*sin(a*d))*cos(b*d*log(c
)) - (cos(2*a*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d
*log(c)) - sin(b*d*log(c))*sin(a*d))*e^m*m + (b*d*cos(a*d)*sin(b*d*log(c))
+ b*d*cos(b*d*log(c))*sin(a*d) + ((b*d*cos(a*d)*sin(2*a*d) - b*d*cos(2*a*d)
*sin(a*d))*cos(b*d*log(c)) - (b*d*cos(2*a*d)*cos(a*d) + b*d*sin(2*a*d)*sin(
a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) + ((b*d*cos(2*a*d)*cos(a*d) + b*d*
sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (b*d*cos(a*d)*sin(2*a*d) - b*d*cos(2
*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d*log(c)))*e^m*n + (((cos(2*a*d)*c
```

```
os(a*d) + sin(2*a*d)*sin(a*d))*cos(b*d*log(c)) + (cos(a*d)*sin(2*a*d) - cos
(2*a*d)*sin(a*d))*sin(b*d*log(c)))*cos(2*b*d*log(c)) + cos(b*d*log(c))*cos(
a*d) - ((cos(a*d)*sin(2*a*d) - cos(2*a*d)*sin(a*d))*cos(b*d*log(c)) - (cos(
2*a*d)*cos(a*d) + sin(2*a*d)*sin(a*d))*sin(b*d*log(c)))*sin(2*b*d*log(c)) -
 sin(b*d*log(c))*sin(a*d))*e^m)*x*x^m*sin(b*d*log(x^n)))/(((cos(a*d)^2 + si
n(a*d)^2)*cos(b*d*log(c))^2 + (cos(a*d)^2 + sin(a*d)^2)*sin(b*d*log(c))^2)*
m^2 + ((b^2*d^2*cos(a*d)^2 + b^2*d^2*sin(a*d)^2)*cos(b*d*log(c))^2 + (b^2*d
^2*cos(a*d)^2 + b^2*d^2*sin(a*d)^2)*sin(b*d*log(c))^2)*n^2 + (cos(a*d)^2 +
sin(a*d)^2)*cos(b*d*log(c))^2 + (cos(a*d)^2 + sin(a*d)^2)*sin(b*d*log(c))^2
 + 2*((cos(a*d)^2 + sin(a*d)^2)*cos(b*d*log(c))^2 + (cos(a*d)^2 + sin(a*d)^
2)*sin(b*d*log(c))^2)*m)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 6580 vs. $2(92) = 184$.

Time = 0.52 (sec) , antiderivative size = 6580, normalized size of antiderivative = 71.52

$$\int (ex)^m \sin (d(a + b \log (cx^n))) \, dx = \text{Too large to display}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n))),x, algorithm="giac")
```

```
[Out] 1/2*(b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/2*a*d)^2 + b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2*tan(1/2*a*d)^2 - b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*
b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 - b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
^2 + 4*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) -
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1
/2*a*d) - 4*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn
(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x))
 + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(1/2*a*d) - 4*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*
d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(ab
s(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi
*m)^2*tan(1/2*a*d) - 4*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2
*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
```

log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/2*a*d) - b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n +
1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d
*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 - b*d*n*x*e^(-1/2*pi
*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e
)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(
1/2*a*d)^2 + 4*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*s
gn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x
)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)
*tan(1/2*a*d)^2 - 4*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2
*pi*m)*tan(1/2*a*d)^2 - b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2
*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*s
gn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 - b*d*n*x*e^(-1/2*pi*b
*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e))
 + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/2*a*d)^2 + 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
 - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*
tan(1/2*a*d) + 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sg
n(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m
)^2*tan(1/2*a*d) - 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d
*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*p
i*m)*tan(1/2*a*d)^2 + 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi
*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(1/2*a*d)^2 + 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2
*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*
d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x
) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*
d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1
/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 + b*d*n*x*e^(-1/2*pi*b*d*n*sg
n(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*lo
g(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2 - 4*b*d*n*x*e
^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*l
og(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 4*b*d*n*x*e^(-1/2*pi*
b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)
) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4

*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + b*d*n*x*e^(1/2*pi*b*d*n*sgn(x)
 - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(ab
s(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + b*d*n*x*e^(-1/
2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
 + 4*b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))*tan(1/2*a*d) + 4*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b
*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(
1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d) - 4*b*d*n*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*t
an(1/2*a*d) + 4*b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d
*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) + 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + 2*x*e^(-1/2*pi*b*d*n*sgn(x) +
1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x
)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e)
+ 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) + b*d*n*x*e^(1/2*pi*b*d*n*sgn(
x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/2*a*d)^2 + b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n -
1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d
)^2 - 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*p
i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*
d)^2 + 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2
*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*
d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*
a*d)^2 + 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/
2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2
*a*d)^2 + 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) +
1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2
*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1
/2*a*d)^2 + 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c)
 - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) +
1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) -
2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b
*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log
(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*m*x*e^(1/
2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(a
bs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(-1/2*pi*b*d*n*

sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) + 8*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 8*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d) - 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 - 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 - b*d*n*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) - b*d*n*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))) + 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) - 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 - 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d) - 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*p

i*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*
log(abs(c)))^2*tan(1/2*a*d) + 8*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1
/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
 - 1/2*pi*m)*tan(1/2*a*d) - 8*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2
*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
1/2*pi*m)*tan(1/2*a*d) - 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(
e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) - 2*x*e^(-1/2*pi*b*d*n*sgn(
x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d) -
 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(a
bs(c)))*tan(1/2*a*d)^2 - 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*p
i*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))*tan(1/2*a*d)^2 + 2*x*e^(1/2*pi*b*d*n*sgn(x
) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(a
bs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)*tan(1/2*a*d)^2 -
2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1
/2*pi*m)*tan(1/2*a*d)^2 + 2*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2
*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c))) + 2*m*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi
*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*ta
n(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 2*m*x*e^(1/2*pi*b*d*n*sgn(
x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(
abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*m*x*e^(-1/2*
pi*b*d*n*sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs
(e)) + m*log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2
*m*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d
 + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*a*d) + 2*m*x*e^(-1/2*pi*b*d*n*sgn
(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log
(abs(x)))*tan(1/2*a*d) + 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi
*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2*b*d*n*log
(abs(x)) + 1/2*b*d*log(abs(c))) + 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*b*d*
n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan(1/2
*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c))) - 2*x*e^(1/2*pi*b*d*n*sgn(x) - 1/
2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x))
)*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^(-1/2*pi*b*d*n*
sgn(x) + 1/2*pi*b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*
log(abs(x)))*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m) + 2*x*e^(1/2
*pi*b*d*n*sgn(x) - 1/2*pi*b*d*n + 1/2*pi*b*d*sgn(c) - 1/2*pi*b*d + m*log(ab
s(e)) + m*log(abs(x)))*tan(1/2*a*d) + 2*x*e^(-1/2*pi*b*d*n*sgn(x) + 1/2*pi*
b*d*n - 1/2*pi*b*d*sgn(c) + 1/2*pi*b*d + m*log(abs(e)) + m*log(abs(x)))*tan

```
(1/2*a*d))/(b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*
tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + b^2*d^
2*n^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e
) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + b^2*d^2*n^2*tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + b^2*d^2*n^2*tan(1/2*b*d*n*lo
g(abs(x)) + 1/2*b*d*log(abs(c)))^2 + b^2*d^2*n^2*tan(1/4*pi*m*sgn(e) + 1/4*
pi*m*sgn(x) - 1/2*pi*m)^2 + b^2*d^2*n^2*tan(1/2*a*d)^2 + m^2*tan(1/2*b*d*n*
log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x)
- 1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(
abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)
^2 + b^2*d^2*n^2 + m^2*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*t
an(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*tan(1/2*b*d*n*log(
abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + m^2*tan(1/4*pi*m*sgn(e) +
 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + tan(1/2*b*d*n*log(abs(x)) +
 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2
*tan(1/2*a*d)^2 + 2*m*tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + 2*m*tan(1/2*b*d*n*log(a
bs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + 2*m*tan(1/4*pi*m*sgn(e) +
1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + m^2*tan(1/2*b*d*n*log(abs(x)
) + 1/2*b*d*log(abs(c)))^2 + m^2*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/
2*pi*m)^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/4*pi*m
*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + m^2*tan(1/2*a*d)^2 + tan(1/2*b*d*
n*log(abs(x)) + 1/2*b*d*log(abs(c)))^2*tan(1/2*a*d)^2 + tan(1/4*pi*m*sgn(e)
 + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2*tan(1/2*a*d)^2 + 2*m*tan(1/2*b*d*n*log(abs
(x)) + 1/2*b*d*log(abs(c)))^2 + 2*m*tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) -
 1/2*pi*m)^2 + 2*m*tan(1/2*a*d)^2 + m^2 + tan(1/2*b*d*n*log(abs(x)) + 1/2*b
*d*log(abs(c)))^2 + tan(1/4*pi*m*sgn(e) + 1/4*pi*m*sgn(x) - 1/2*pi*m)^2 + t
an(1/2*a*d)^2 + 2*m + 1)
```

Mupad [B] (verification not implemented)

Time = 28.70 (sec) , antiderivative size = 80, normalized size of antiderivative = 0.87

$$\int (ex)^m \sin\left(d(a+b\log\left(cx^n\right))\right)\,dx=\frac{x\,\mathrm{e}^{-a\,d\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,d\,1\mathrm{i}}}\,{\left(e\,x\right)}^m\,1\mathrm{i}}{2\,m+2-b\,d\,n\,2\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,d\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,d\,1\mathrm{i}}\,{\left(e\,x\right)}^m}{m\,2\mathrm{i}-2\,b\,d\,n+2\mathrm{i}}$$

```
[In] int(sin(d*(a + b*log(c*x^n)))*(e*x)^m,x)
```

```
[Out] (x*exp(-a*d*1i)/(c*x^n)^(b*d*1i)*(e*x)^m*1i)/(2*m - b*d*n*2i + 2) + (x*exp(
a*d*1i)*(c*x^n)^(b*d*1i)*(e*x)^m)/(m*2i - 2*b*d*n + 2i)
```

3.74 $\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx$

Optimal result 1239
Rubi [A] (verified) 1239
Mathematica [A] (verified) 1241
Maple [F] 1241
Fricas [F(-2)] 1241
Sympy [F(-1)] 1242
Maxima [F] 1242
Giac [F] 1242
Mupad [F(-1)] 1242

Optimal result

Integrand size = 23, antiderivative size = 150

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \frac{2(ex)^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},-\frac{2i+2im+3bdn}{4bdn},-\frac{2i+2im-bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}{e(2+2m-3ibdn)\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}}$$

```
[Out] 2*(e*x)^(1+m)*hypergeom([-3/2, 1/4*(-2*I-2*I*m-3*b*d*n)/b/d/n],[1/4*(-2*I-2
*I*m+b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))*sin(d*(a+b*ln(c*x^n)))^(
3/2)/e/(2+2*m-3*I*b*d*n)/(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^(3/2)
```

Rubi [A] (verified)

Time = 0.15 (sec) , antiderivative size = 145, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.130$, Rules used = {4581, 4579, 371}

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \frac{2(ex)^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bdn}-3\right),-\frac{2im-bdn+2i}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}{e(-3ibdn+2m+2)\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(3/2),x]
```

```
[Out] (2*(e*x)^(1 + m)*Hypergeometric2F1[-3/2, (-3 - ((2*I)*(1 + m))/(b*d*n))/4,
-1/4*(2*I + (2*I)*m - b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*Si
```

```
n[d*(a + b*Log[c*x^n])]^(3/2))/(e*(2 + 2*m - (3*I)*b*d*n)*(1 - E^((2*I)*a*d
)*(c*x^n)^((2*I)*b*d))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sin^{\frac{3}{2}}(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{\frac{3ibd}{2}-\frac{1+m}{n}}\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\right)\text{Subst}\left(\int x^{-1-\frac{3ibd}{2}+\frac{1+m}{n}}\left(1-e^{2iad}x^{2ibd}\right)^{3/2}\,dx,x,cx\right.}{en\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}}$$

$$= \frac{2(ex)^{1+m}\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i(1+m)}{bdn}\right),-\frac{2i+2im-bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sin^{\frac{3}{2}}(d(a+b\log}{e(2+2m-3ibdn)\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}}$$

Mathematica [A] (verified)

Time = 1.56 (sec) , antiderivative size = 256, normalized size of antiderivative = 1.71

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx$$

$$= \frac{2(ex)^m\left(\frac{3b^2d^2\sqrt{2-2e^{2id(a+b\log(cx^n))}}n^2x\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{-2i-2im+bdn}{4bdn},-\frac{2i+2im-5bdn}{4bdn},e^{2id(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-id(a+b\log(cx^n))}\left(-1+e^{2id(a+b\log(cx^n))}\right)}(2+2m+ibdn)}+x\sqrt{\sin(d(a+}\right.}{4+8m+4m^2+9b^2d^2n^2}$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^(3/2),x]
```

```
[Out] (2*(e*x)^m*((3*b^2*d^2*Sqrt[2 - 2*E^((2*I)*d*(a + b*Log[c*x^n]))]*n^2*x*Hyp
ergeometric2F1[1/2, (-2*I - (2*I)*m + b*d*n)/(4*b*d*n), -1/4*(2*I + (2*I)*m
 - 5*b*d*n)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])/(Sqrt[((-I)*(-1 + E^(
(2*I)*d*(a + b*Log[c*x^n]))))/E^(I*d*(a + b*Log[c*x^n]))]*(2 + 2*m + I*b*d*
n)) + x*Sqrt[Sin[d*(a + b*Log[c*x^n])]]*(-3*b*d*n*Cos[d*(a + b*Log[c*x^n])]
 + 2*(1 + m)*Sin[d*(a + b*Log[c*x^n])])))/(4 + 8*m + 4*m^2 + 9*b^2*d^2*n^2)
```

Maple [F]

$$\int (ex)^m \sin(d(a+b\ln(c\,x^n)))^{\frac{3}{2}}dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^(3/2),x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F(-1)]

Timed out.

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**(3/2),x)
[Out] Timed out
```

Maxima [F]

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \int (ex)^m \sin\left((b\log(cx^n)+a)d\right)^{\frac{3}{2}}\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="maxima")
[Out] integrate((e*x)^m*sin((b*log(c*x^n) + a)*d)^(3/2), x)
```

Giac [F]

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \int (ex)^m \sin\left((b\log(cx^n)+a)d\right)^{\frac{3}{2}}\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="giac")
[Out] integrate((e*x)^m*sin((b*log(c*x^n) + a)*d)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \sin^{\frac{3}{2}}(d(a+b\log(cx^n)))\,dx = \int \sin\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^{3/2}(e\,x)^m\,dx$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^(3/2)*(e*x)^m,x)
[Out] int(sin(d*(a + b*log(c*x^n)))^(3/2)*(e*x)^m, x)
```

3.75 $\int (ex)^m \sqrt{\sin (d (a+b \log (c x^n)))} \, dx$

Optimal result 1243
Rubi [A] (verified) 1243
Mathematica [B] (verified) 1245
Maple [F] 1245
Fricas [F(-2)] 1246
Sympy [F] 1246
Maxima [F] 1246
Giac [F] 1246
Mupad [F(-1)] 1247

Optimal result

Integrand size = 23, antiderivative size = 149

$$\int (ex)^m \sqrt{\sin (d (a+b \log (c x^n)))} \, dx = \frac{2(ex)^{1+m} \text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+2im+bdn}{4bdn},-\frac{2i+2im-3bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sqrt{\sin (d (a+b \log (c x^n)))}}{e(2+2m-ibdn)\sqrt{1-e^{2iad}(cx^n)^{2ibd}}}$$

```
[Out] 2*(e*x)^(1+m)*hypergeom([-1/2, 1/4*(-2*I-2*I*m-b*d*n)/b/d/n],[1/4*(-2*I-2*I
*m+3*b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))*sin(d*(a+b*ln(c*x^n)))^(
1/2)/e/(2+2*m-I*b*d*n)/(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^(1/2)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 145, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4581, 4579, 371}

$$\int (ex)^m \sqrt{\sin (d (a+b \log (c x^n)))} \, dx = \frac{2(ex)^{m+1} \text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bdn}-1\right),-\frac{2im-3bdn+2i}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sqrt{\sin (d (a+b \log (cx^n)))}}{e(-ibdn+2m+2)\sqrt{1-e^{2iad}(cx^n)^{2ibd}}}$$

```
[In] Int[(e*x)^m*Sqrt[Sin[d*(a + b*Log[c*x^n])]],x]
```

```
[Out] (2*(e*x)^(1 + m)*Hypergeometric2F1[-1/2, (-1 - ((2*I)*(1 + m))/(b*d*n))/4,
-1/4*(2*I + (2*I)*m - 3*b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*
```

```
Sqrt[Sin[d*(a + b*Log[c*x^n])]])/(e*(2 + 2*m - I*b*d*n)*Sqrt[1 - E^((2*I)*a
*d)*(c*x^n)^((2*I)*b*d)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sqrt{\sin(d(a+b\log(x)))}\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{\frac{ibd}{2}-\frac{1+m}{n}}\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ibd}{2}+\frac{1+m}{n}}\sqrt{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en\sqrt{1-e^{2iad}\left(cx^n\right)^{2ibd}}}$$

$$= \frac{2(ex)^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{2i(1+m)}{bdn}\right),-\frac{2i+2im-3bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)\sqrt{\sin\left(d\left(a+b\,\mathrm{l}\right.\right.}}{e(2+2m-ibdn)\sqrt{1-e^{2iad}\left(cx^n\right)^{2ibd}}}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 488 vs. $2(149) = 298$.

Time = 6.54 (sec) , antiderivative size = 488, normalized size of antiderivative = 3.28

$$\int (ex)^m \sqrt{\sin(d(a+b\log(cx^n)))}\,dx$$

$$= 2x(ex)^m \left(-\frac{bde^{id(a-bn\log(x)+b\log(cx^n))} n x^{-ibdn} \sqrt{2-2e^{2iad}(cx^n)^{2ibd}} \left((2i+2im+bdn)x^{2ibdn}\,\text{Hypergeometri}\right.}{(2+2m-ibdn)(2+2m+3ibdn)\,(2i+2im} \right.$$

$$\left. + \frac{\sqrt{\sin(d(a+b\log(cx^n)))}\sin(d(a-bn\log(x)+b\log(cx^n)))}{bdn\cos(d(a-bn\log(x)+b\log(cx^n)))+2(1+m)\sin(d(a-bn\log(x)+b\log(cx^n)))} \right)$$

```
[In] Integrate[(e*x)^m*Sqrt[Sin[d*(a + b*Log[c*x^n])]],x]
```

```
[Out] 2*x*(e*x)^m*(-((b*d*E^(I*d*(a - b*n*Log[x] + b*Log[c*x^n]))*n*Sqrt[2 - 2*E^
((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*((2*I + (2*I)*m + b*d*n)*x^((2*I)*b*d*n)*H
ypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I)/2)*b*d*n))/(b*d*n), -1/4*(2
*I + (2*I)*m - 7*b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)] + (-2*I
 - (2*I)*m + 3*b*d*n)*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m + b*d*n)/(
b*d*n), -1/4*(2*I + (2*I)*m - 3*b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I
)*b*d)]))/((2 + 2*m - I*b*d*n)*(2 + 2*m + (3*I)*b*d*n)*(2*I + (2*I)*m + b*d
*n + E^((2*I)*d*(a - b*n*Log[x] + b*Log[c*x^n]))*(-2*I - (2*I)*m + b*d*n))*
x^(I*b*d*n)*Sqrt[((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(E^(I*a*d)
*(c*x^n)^(I*b*d))])) + (Sqrt[Sin[d*(a + b*Log[c*x^n])]]*Sin[d*(a - b*n*Log[
x] + b*Log[c*x^n])])/(b*d*n*Cos[d*(a - b*n*Log[x] + b*Log[c*x^n])] + 2*(1 +
 m)*Sin[d*(a - b*n*Log[x] + b*Log[c*x^n])]))
```

Maple [F]

$$\int (ex)^m \sqrt{\sin(d(a+b\ln(c\,x^n)))}dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^(1/2),x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int (ex)^m \sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int (ex)^m \sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}\,dx = \int (ex)^m\,\sqrt{\sin\left(ad+bd\log\left(cx^n\right)\right)}\,dx$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**(1/2),x)
[Out] Integral((e*x)**m*sqrt(sin(a*d + b*d*log(c*x**n))), x)
```

Maxima [F]

$$\int (ex)^m \sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}\,dx = \int (ex)^m\,\sqrt{\sin\left((b\log\left(cx^n\right)+a)d\right)}\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="maxima")
[Out] integrate((e*x)^m*sqrt(sin((b*log(c*x^n) + a)*d)), x)
```

Giac [F]

$$\int (ex)^m \sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}\,dx = \int (ex)^m\,\sqrt{\sin\left((b\log\left(cx^n\right)+a)d\right)}\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="giac")
[Out] integrate((e*x)^m*sqrt(sin((b*log(c*x^n) + a)*d)), x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \sqrt{\sin \left(d \left(a+b \log \left(cx^n\right)\right)\right)}\, dx = \int \sqrt{\sin \left(d\ \left(a+b\ \ln \left(c\, x^n\right)\right)\right)}\, {\left(e\, x\right)}^m \,dx$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^(1/2)*(e*x)^m,x)
[Out] int(sin(d*(a + b*log(c*x^n)))^(1/2)*(e*x)^m, x)
```

3.76 $\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx$

Optimal result 1248
Rubi [A] (verified) 1248
Mathematica [A] (verified) 1249
Maple [F] 1250
Fricas [F(-2)] 1250
Sympy [F] 1250
Maxima [F] 1251
Giac [F] 1251
Mupad [F(-1)] 1251

Optimal result

Integrand size = 23, antiderivative size = 150

$$\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx = \frac{2(ex)^{1+m}\sqrt{1-e^{2iad}(cx^n)^{2ibd}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bdn}{4bdn},-\frac{2i+2im-5bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(2+2m+ibdn)\sqrt{\sin(d(a+b\log(cx^n)))}}$$

```
[Out] 2*(e*x)^(1+m)*hypergeom([1/2, 1/4*(-2*I-2*I*m+b*d*n)/b/d/n],[1/4*(-2*I-2*I*
m+5*b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))*(1-exp(2*I*a*d)*(c*x^n)^(
2*I*b*d))^(1/2)/e/(2+2*m+I*b*d*n)/sin(d*(a+b*ln(c*x^n)))^(1/2)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 150, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.130$, Rules used = {4581, 4579, 371}

$$\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx = \frac{2(ex)^{m+1}\sqrt{1-e^{2iad}(cx^n)^{2ibd}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2im-bdn+2i}{4bdn},-\frac{2im-5bdn+2i}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(ibdn+2m+2)\sqrt{\sin(d(a+b\log(cx^n)))}}$$

```
[In] Int[(e*x)^m/Sqrt[Sin[d*(a + b*Log[c*x^n])]],x]
```

```
[Out] (2*(e*x)^(1 + m)*Sqrt[1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*Hypergeometric
2F1[1/2, -1/4*(2*I + (2*I)*m - b*d*n)/(b*d*n), -1/4*(2*I + (2*I)*m - 5*b*d*
```

```
n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(2 + 2*m + I*b*d*n)*Sqrt
[Sin[d*(a + b*Log[c*x^n])]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1+m}{n}}}{\sqrt{\sin(d(a+b\log(x)))}}\,dx,x,cx^n\right)}{en}$$
$$=\frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1}{2}ibd-\frac{1+m}{n}}\sqrt{1-e^{2iad}\left(cx^n\right)^{2ibd}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{ibd}{2}+\frac{1+m}{n}}}{\sqrt{1-e^{2iad}x^{2ibd}}}\,dx,x,cx^n\right)}{en\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}}$$
$$=\frac{2(ex)^{1+m}\sqrt{1-e^{2iad}\left(cx^n\right)^{2ibd}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bdn}{4bdn},-\frac{2i+2im-5bdn}{4bdn},e^{2iad}\left(cx^n\right)^{2ibd}\right)}{e(2+2m+ibdn)\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}}$$

Mathematica [A] (verified)

Time = 0.76 (sec) , antiderivative size = 165, normalized size of antiderivative = 1.10

$$\int\frac{(ex)^m}{\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}}\,dx$$
$$=\frac{2\sqrt{2-2e^{2id(a+b\log(cx^n))}}x(ex)^m\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{-2i-2im+bdn}{4bdn},-\frac{2i+2im-5bdn}{4bdn},e^{2id(a+b\log(cx^n))}\right)}{\sqrt{-ie^{-id(a+b\log(cx^n))}\left(-1+e^{2id(a+b\log(cx^n))}\right)}(2+2m+ibdn)}$$

```
[In] Integrate[(e*x)^m/Sqrt[Sin[d*(a + b*Log[c*x^n])]],x]
```

```
[Out] (2*Sqrt[2 - 2*E^((2*I)*d*(a + b*Log[c*x^n]))]*x*(e*x)^m*Hypergeometric2F1[1
/2, (-2*I - (2*I)*m + b*d*n)/(4*b*d*n), -1/4*(2*I + (2*I)*m - 5*b*d*n)/(b*d
*n), E^((2*I)*d*(a + b*Log[c*x^n]))])/(Sqrt[((-I)*(-1 + E^((2*I)*d*(a + b*L
og[c*x^n]))))/E^(I*d*(a + b*Log[c*x^n]))]*(2 + 2*m + I*b*d*n))
```

Maple [F]

$$\int \frac{(ex)^m}{\sqrt{\sin\left(d\left(a+b\ln\left(c\,x^n\right)\right)\right)}}dx$$

```
[In] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(1/2),x)
```

```
[Out] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{(ex)^m}{\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{(ex)^m}{\sqrt{\sin\left(d\left(a+b\log\left(cx^n\right)\right)\right)}}\,dx = \int \frac{(ex)^m}{\sqrt{\sin\left(ad+bd\log\left(cx^n\right)\right)}}\,dx$$

```
[In] integrate((e*x)**m/sin(d*(a+b*ln(c*x**n)))**(1/2),x)
```

```
[Out] Integral((e*x)**m/sqrt(sin(a*d + b*d*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx = \int \frac{(ex)^m}{\sqrt{\sin((b\log(cx^n)+a)d)}}\,dx$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="maxima")
[Out] integrate((e*x)^m/sqrt(sin((b*log(c*x^n) + a)*d)), x)
```

Giac [F]

$$\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx = \int \frac{(ex)^m}{\sqrt{\sin((b\log(cx^n)+a)d)}}\,dx$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(1/2),x, algorithm="giac")
[Out] integrate((e*x)^m/sqrt(sin((b*log(c*x^n) + a)*d)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sqrt{\sin(d(a+b\log(cx^n)))}}\,dx = \int \frac{(e\,x)^m}{\sqrt{\sin\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}}\,dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(1/2),x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(1/2), x)
```

3.77 $\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}\,dx$

Optimal result 1252
Rubi [A] (verified) 1252
Mathematica [B] (verified) 1254
Maple [F] 1254
Fricas [F(-2)] 1255
Sympy [F] 1255
Maxima [F] 1255
Giac [F(-1)] 1255
Mupad [F(-1)] 1256

Optimal result

Integrand size = 23, antiderivative size = 150

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}\,dx = \frac{2(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},-\frac{2i+2im-3bdn}{4bdn},-\frac{2i+2im-7bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(2+2m+3ibdn)\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}$$

```
[Out] 2*(e*x)^(1+m)*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^(3/2)*hypergeom([3/2, 1/4*
(-2*I-2*I*m+3*b*d*n)/b/d/n],[1/4*(-2*I-2*I*m+7*b*d*n)/b/d/n],exp(2*I*a*d)*(
c*x^n)^(2*I*b*d))/e/(2+2*m+3*I*b*d*n)/sin(d*(a+b*ln(c*x^n)))^(3/2)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 145, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4581, 4579, 371}

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}\,dx = \frac{2(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(m+1)}{bdn}\right),-\frac{2im-7bdn+2i}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(3ibdn+2m+2)\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}$$

```
[In] Int[(e*x)^m/Sin[d*(a + b*Log[c*x^n])]^(3/2),x]
```

```
[Out] (2*(e*x)^(1 + m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^(3/2)*Hypergeometr
ic2F1[3/2, (3 - ((2*I)*(1 + m))/(b*d*n))/4, -1/4*(2*I + (2*I)*m - 7*b*d*n)/
```

```
(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(2 + 2*m + (3*I)*b*d*n)*Sin
[d*(a + b*Log[c*x^n])]^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\sin^{\frac{3}{2}}(d(a+b\log(x)))}\,dx, x, cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{3}{2}ibd-\frac{1+m}{n}}\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)^{3/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3ibd}{2}+\frac{1+m}{n}}}{\left(1-e^{2iad}x^{2ibd}\right)^{3/2}}\,dx, x, cx^n\right)}{en\sin^{\frac{3}{2}}\left(d\left(a+b\log\left(cx^n\right)\right)\right)}$$

$$= \frac{2(ex)^{1+m}\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2}, \frac{1}{4}\left(3-\frac{2i(1+m)}{bdn}\right), -\frac{2i+2im-7bdn}{4bdn}, e^{2iad}\left(cx^n\right)\right.}{e(2+2m+3ibdn)\sin^{\frac{3}{2}}\left(d\left(a+b\log\left(cx^n\right)\right)\right)}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 544 vs. 2(150) = 300.

Time = 3.99 (sec) , antiderivative size = 544, normalized size of antiderivative = 3.63

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}\,dx$$

$$= \frac{(4+8m+4m^2+b^2d^2n^2)\,x^{1+ibdn}(ex)^m\sqrt{2-2e^{2iad}\,(cx^n)^{2ibd}}\ \text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{i(1+m+\frac{3}{2}ibdn)}{2bdn},-\frac{2i+2i\dots}{4\dots}\right.}{bdn(-2i-2im+3b\dots}$$

```
[In] Integrate[(e*x)^m/Sin[d*(a + b*Log[c*x^n])]^(3/2),x]
```

```
[Out] ((4 + 8*m + 4*m^2 + b^2*d^2*n^2)*x^(1 + I*b*d*n)*(e*x)^m*Sqrt[2 - 2*E^((2*I
)*a*d)*(c*x^n)^((2*I)*b*d)]*Hypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I
)/2)*b*d*n))/(b*d*n), -1/4*(2*I + (2*I)*m - 7*b*d*n)/(b*d*n), E^((2*I)*a*d)
*(c*x^n)^((2*I)*b*d)] + ((-2*I - (2*I)*m + 3*b*d*n)*x^(1 - I*b*d*n)*(e*x)^m
*(-2*x^(I*b*d*n)*Sqrt[((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(E^(I
*a*d)*(c*x^n)^(I*b*d))]*(b*d*n*Cos[b*d*n*Log[x]] - 2*(1 + m)*Sin[b*d*n*Log[
x]]) + (-2*I - (2*I)*m + b*d*n)*Sqrt[2 - 2*E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d
)]*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m + b*d*n)/(b*d*n), -1/4*(2*I +
 (2*I)*m - 3*b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*Sqrt[Sin[d*
(a + b*Log[c*x^n])]]))/Sqrt[Sin[d*(a + b*Log[c*x^n])]])/(b*d*n*(-2*I - (2*I
)*m + 3*b*d*n)*Sqrt[((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(E^(I*a
*d)*(c*x^n)^(I*b*d))]*(b*d*n*Cos[d*(a - b*n*Log[x] + b*Log[c*x^n])] + 2*(1
+ m)*Sin[d*(a - b*n*Log[x] + b*Log[c*x^n])]))
```

Maple [F]

$$\int \frac{(ex)^m}{\sin(d(a+b\ln(c\,x^n)))^{\frac{3}{2}}}dx$$

```
[In] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(3/2),x)
```

```
[Out] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))} dx = \text{Exception raised: TypeError}$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))} dx = \int \frac{(ex)^m}{\sin^{\frac{3}{2}}(ad+bd\log(cx^n))} dx$$

```
[In] integrate((e*x)**m/sin(d*(a+b*ln(c*x**n)))**(3/2),x)
[Out] Integral((e*x)**m/sin(a*d + b*d*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))} dx = \int \frac{(ex)^m}{\sin((b\log(cx^n)+a)d)^{\frac{3}{2}}} dx$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="maxima")
[Out] integrate((e*x)^m/sin((b*log(c*x^n) + a)*d)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))} dx = \text{Timed out}$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sin^{\frac{3}{2}}(d(a+b\log(cx^n)))}\,dx = \int \frac{(e\,x)^m}{\sin\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^{3/2}}\,dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(3/2),x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(3/2), x)
```

3.78 $\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx$

Optimal result 1257
Rubi [A] (verified) 1257
Mathematica [A] (verified) 1259
Maple [F] 1259
Fricas [F(-2)] 1259
Sympy [F(-1)] 1260
Maxima [F] 1260
Giac [F(-1)] 1260
Mupad [F(-1)] 1260

Optimal result

Integrand size = 23, antiderivative size = 150

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \frac{2(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},-\frac{2i+2im-5bdn}{4bdn},-\frac{2i+2im-9bdn}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(2+2m+5ibdn)\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}$$

```
[Out] 2*(e*x)^(1+m)*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^(5/2)*hypergeom([5/2, 1/4*
(-2*I-2*I*m+5*b*d*n)/b/d/n],[1/4*(-2*I-2*I*m+9*b*d*n)/b/d/n],exp(2*I*a*d)*(
c*x^n)^(2*I*b*d))/e/(2+2*m+5*I*b*d*n)/sin(d*(a+b*ln(c*x^n)))^(5/2)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 145, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4581, 4579, 371}

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \frac{2(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(m+1)}{bdn}\right),-\frac{2im-9bdn+2i}{4bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(5ibdn+2m+2)\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}$$

```
[In] Int[(e*x)^m/Sin[d*(a + b*Log[c*x^n])]^(5/2),x]
```

```
[Out] (2*(e*x)^(1 + m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^(5/2)*Hypergeometr
ic2F1[5/2, (5 - ((2*I)*(1 + m))/(b*d*n))/4, -1/4*(2*I + (2*I)*m - 9*b*d*n)/
```

```
(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(2 + 2*m + (5*I)*b*d*n)*Sin
[d*(a + b*Log[c*x^n])]^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1+m}{n}}}{\sin^{\frac{5}{2}}(d(a+b\log(x)))}\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{5}{2}ibd-\frac{1+m}{n}}\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)^{5/2}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ibd}{2}+\frac{1+m}{n}}}{\left(1-e^{2iad}x^{2ibd}\right)^{5/2}}\,dx,x,cx^n\right)}{en\sin^{\frac{5}{2}}\left(d\left(a+b\log\left(cx^n\right)\right)\right)}$$

$$= \frac{2(ex)^{1+m}\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(1+m)}{bdn}\right),-\frac{2i+2im-9bdn}{4bdn},e^{2iad}\left(cx^n\right)^{2i}\right.}{e(2+2m+5ibdn)\sin^{\frac{5}{2}}\left(d\left(a+b\log\left(cx^n\right)\right)\right)}$$

Mathematica [A] (verified)

Time = 1.74 (sec) , antiderivative size = 205, normalized size of antiderivative = 1.37

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \frac{x(ex)^m\left(-2bdn\cos(d(a+b\log(cx^n)))+ie^{-id(a+b\log(cx^n))}\left(1-e^{2id(a+b\log(cx^n))}\right)^{3/2}(2+2m-ibdn)\,\text{Hyperg}\right.}{3b^2d^2n^2\sin^{\frac{3}{2}}(d(a+b}$$

```
[In] Integrate[(e*x)^m/Sin[d*(a + b*Log[c*x^n])]^(5/2),x]
```

```
[Out] (x*(e*x)^m*(-2*b*d*n*Cos[d*(a + b*Log[c*x^n])] + (I*(1 - E^((2*I)*d*(a + b*
Log[c*x^n])))^(3/2)*(2 + 2*m - I*b*d*n)*Hypergeometric2F1[1/2, (-2*I - (2*I
)*m + b*d*n)/(4*b*d*n), -1/4*(2*I + (2*I)*m - 5*b*d*n)/(b*d*n), E^((2*I)*d*
(a + b*Log[c*x^n]))])/E^(I*d*(a + b*Log[c*x^n])) - 4*(1 + m)*Sin[d*(a + b*L
og[c*x^n])]))/(3*b^2*d^2*n^2*Sin[d*(a + b*Log[c*x^n])]^(3/2))
```

Maple [F]

$$\int \frac{(ex)^m}{\sin(d(a+b\ln(c\,x^n)))^{\frac{5}{2}}}dx$$

```
[In] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(5/2),x)
```

```
[Out] int((e*x)^m/sin(d*(a+b*ln(c*x^n)))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \text{Timed out}$$

```
[In] integrate((e*x)**m/sin(d*(a+b*ln(c*x**n)))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \int \frac{(ex)^m}{\sin((b\log(cx^n)+a)d)^{\frac{5}{2}}}\,dx$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(5/2),x, algorithm="maxima")
[Out] integrate((e*x)^m/sin((b*log(c*x^n) + a)*d)^(5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m/sin(d*(a+b*log(c*x^n)))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{(ex)^m}{\sin^{\frac{5}{2}}(d(a+b\log(cx^n)))}\,dx = \int \frac{(e\,x)^m}{\sin\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^{5/2}}\,dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(5/2),x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^(5/2), x)
```

3.79 $\int (ex)^m \sin^p(d(a+b\log(cx^n)))\,dx$

Optimal result 1261
Rubi [A] (verified) 1261
Mathematica [A] (verified) 1262
Maple [F] 1263
Fricas [F] 1263
Sympy [F(-1)] 1263
Maxima [F] 1263
Giac [F] 1264
Mupad [F(-1)] 1264

Optimal result

Integrand size = 21, antiderivative size = 144

$$\int (ex)^m \sin^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{i+im+bdnp}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}-p\right),e^{2iad}(cx^n)^{2ibd}\right)\text{s}}{e(1+m-ibdnp)}$$

```
[Out] (e*x)^(1+m)*hypergeom([-p, 1/2*(-I-I*m-b*d*n*p)/b/d/n],[1-1/2*I*(1+m)/b/d/n
-1/2*p],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))*sin(d*(a+b*ln(c*x^n)))^p/e/(1+m-I*b
*d*n*p)/((1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 144, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4581, 4579, 371}

$$\int (ex)^m \sin^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{im+bdnp+i}{2bdn},\frac{1}{2}\left(-\frac{i(m+1)}{bdn}-p+2\right),e^{2iad}(cx^n)^{2ibd}\right)}{e(-ibdnp+m+1)}$$

```
[In] Int[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*Hypergeometric2F1[-p, -1/2*(I + I*m + b*d*n*p)/(b*d*n), (2 -
 (I*(1 + m))/(b*d*n) - p)/2, E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]*Sin[d*(a +
b*Log[c*x^n])]^p)/(e*(1 + m - I*b*d*n*p)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*
b*d))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sin^p(d(a+b\log(x)))\,dx, x, cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}+ibdp}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\sin^p\left(d\left(a+b\log\left(cx^n\right)\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}-ibdp}(1\right.}{en}$$

$$= \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{i+im+bdnp}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}-p\right),e^{2iad}(cx^n\right.}{e(1+m-ibdnp)}$$

Mathematica [A] (verified)

Time = 1.07 (sec) , antiderivative size = 174, normalized size of antiderivative = 1.21

$$\int (ex)^m\sin^p\left(d\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$= \frac{x(ex)^m\left(2-2e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-ie^{-iad}(cx^n)^{-ibd}\left(-1+e^{2iad}(cx^n)^{2ibd}\right)\right)^p\text{Hypergeometric2F1}\left(-p,-\frac{i+im}{2b}\right.}{1+m-ibdnp}$$

```
[In] Integrate[(e*x)^m*Sin[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(e*x)^m*(((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(E^(I*a*d)*(c*x
^n)^(I*b*d)))^p*Hypergeometric2F1[-p, -1/2*(I + I*m + b*d*n*p)/(b*d*n), 1 -
 ((I/2)*(1 + m))/(b*d*n) - p/2, E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/((1 + m
 - I*b*d*n*p)*(2 - 2*E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p)
```

Maple [F]

$$\int (ex)^m \sin \left(d(a+b\ln \left(c\,x^n\right))\right)^p dx$$

```
[In] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^p,x)
```

```
[Out] int((e*x)^m*sin(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \sin^p\left(d(a+b\log \left(cx^n\right))\right)\,dx = \int (ex)^m \sin \left((b\log \left(cx^n\right)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*sin(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F(-1)]

Timed out.

$$\int (ex)^m \sin^p\left(d(a+b\log \left(cx^n\right))\right)\,dx = \text{Timed out}$$

```
[In] integrate((e*x)**m*sin(d*(a+b*ln(c*x**n)))**p,x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int (ex)^m \sin^p\left(d(a+b\log \left(cx^n\right))\right)\,dx = \int (ex)^m \sin \left((b\log \left(cx^n\right)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
```

```
[Out] integrate((e*x)^m*sin((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F]

$$\int (ex)^m \sin^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \sin((b\log(cx^n)+a)d)^p\,dx$$

```
[In] integrate((e*x)^m*sin(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*sin((b*log(c*x^n) + a)*d)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \sin^p(d(a+b\log(cx^n)))\,dx = \int \sin(d(a+b\ln(c\,x^n)))^p\,(e\,x)^m\,dx$$

```
[In] int(sin(d*(a + b*log(c*x^n)))^p*(e*x)^m,x)
[Out] int(sin(d*(a + b*log(c*x^n)))^p*(e*x)^m, x)
```

3.80 $\int x^2 \sin^p(a+b\log(cx^n))\,dx$

Optimal result 1265
Rubi [A] (verified) 1265
Mathematica [A] (verified) 1266
Maple [F] 1267
Fricas [F] 1267
Sympy [F] 1267
Maxima [F] 1267
Giac [F] 1268
Mupad [F(-1)] 1268

Optimal result

Integrand size = 17, antiderivative size = 114

$$\int x^2 \sin^p(a+b\log(cx^n))\,dx = \frac{x^3\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{3i+bnp}{2bn},\frac{1}{2}\left(2-\frac{3i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{3-ibnp}$$

```
[Out] x^3*hypergeom([-p, 1/2*(-3*I-b*n*p)/b/n],[1-3/2*I/b/n-1/2*p],exp(2*I*a)*(c*
x^n)^(2*I*b))*sin(a+b*ln(c*x^n))^p/(3-I*b*n*p)/((1-exp(2*I*a)*(c*x^n)^(2*I*
b))^p)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 114, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.176$, Rules used = {4581, 4579, 371}

$$\int x^2 \sin^p(a+b\log(cx^n))\,dx = \frac{x^3\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{bnp+3i}{2bn},\frac{1}{2}\left(-p-\frac{3i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{3-ibnp}$$

```
[In] Int[x^2*Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x^3*Hypergeometric2F1[-p, -1/2*(3*I + b*n*p)/(b*n), (2 - (3*I)/(b*n) - p)/
2, E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^p)/((3 - I*b*n*p)*(
1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sin^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^3(cx^n)^{-\frac{3}{n}+ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\sin^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}-ibp}\left(1-e^{2ia}x^{2ib}\right)^p\,dx,x\right.}{n}$$

$$= \frac{x^3\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{3i+bnp}{2bn},\frac{1}{2}\left(2-\frac{3i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p\left(a+b\,\mathrm{lo}\right.}{3-ibnp}$$

Mathematica [A] (verified)

Time = 0.69 (sec) , antiderivative size = 148, normalized size of antiderivative = 1.30

$$\int x^2\sin^p\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= \frac{ix^3\left(2-2e^{2ia}(cx^n)^{2ib}\right)^{-p}\left(-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\right)^p\text{Hypergeometric2F1}\left(-p,-\frac{3i+bnp}{2bn},1-\frac{3i}{2bn}\right.}{3i+bnp}$$

```
[In] Integrate[x^2*Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (I*x^3*(((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b))
)^p*Hypergeometric2F1[-p, -1/2*(3*I + b*n*p)/(b*n), 1 - ((3*I)/2)/(b*n) - p
/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((3*I + b*n*p)*(2 - 2*E^((2*I)*a)*(c*x^
n)^((2*I)*b))^p)
```

Maple [F]

$$\int x^2 \sin\left(a+b\ln\left(c\,x^n\right)\right)^p dx$$

[In] int(x^2*sin(a+b*ln(c*x^n))^p,x)

[Out] int(x^2*sin(a+b*ln(c*x^n))^p,x)

Fricas [F]

$$\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int x^2 \sin\left(b\log\left(cx^n\right)+a\right)^p\,dx$$

[In] integrate(x^2*sin(a+b*log(c*x^n))^p,x, algorithm="fricas")

[Out] integral(x^2*sin(b*log(c*x^n) + a)^p, x)

Sympy [F]

$$\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)dx$$

[In] integrate(x**2*sin(a+b*ln(c*x**n))**p,x)

[Out] Integral(x**2*sin(a + b*log(c*x**n))**p, x)

Maxima [F]

$$\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int x^2 \sin\left(b\log\left(cx^n\right)+a\right)^p\,dx$$

[In] integrate(x^2*sin(a+b*log(c*x^n))^p,x, algorithm="maxima")

[Out] integrate(x^2*sin(b*log(c*x^n) + a)^p, x)

Giac [F]

$$\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int x^2\sin\left(b\log\left(cx^n\right)+a\right)^p\,dx$$

```
[In] integrate(x^2*sin(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(x^2*sin(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int x^2\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^p\,dx$$

```
[In] int(x^2*sin(a + b*log(c*x^n))^p,x)
[Out] int(x^2*sin(a + b*log(c*x^n))^p, x)
```

3.81 $\int x \sin^p(a+b\log(cx^n))\,dx$

Optimal result 1269
Rubi [A] (verified) 1269
Mathematica [A] (verified) 1270
Maple [F] 1271
Fricas [F] 1271
Sympy [F] 1271
Maxima [F] 1271
Giac [F] 1272
Mupad [F(-1)] 1272

Optimal result

Integrand size = 15, antiderivative size = 114

$$\int x\sin^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(2-\frac{2i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log}{2-ibnp}$$

```
[Out] x^2*hypergeom([-p, -I/b/n-1/2*p],[1-I/b/n-1/2*p],exp(2*I*a)*(c*x^n)^(2*I*b)
)*sin(a+b*ln(c*x^n))^p/(2-I*b*n*p)/((1-exp(2*I*a)*(c*x^n)^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 114, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4581, 4579, 371}

$$\int x\sin^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-p-\frac{2i}{bn}\right),-p,\frac{1}{2}\left(-p-\frac{2i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\,\mathrm{lo}}{2-ibnp}$$

```
[In] Int[x*Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x^2*Hypergeometric2F1[((-2*I)/(b*n) - p)/2, -p, (2 - (2*I)/(b*n) - p)/2, E
^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^p)/((2 - I*b*n*p)*(1 -
E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sin^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-\frac{2}{n}+ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\sin^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}-ibp}\left(1-e^{2ia}x^{2ib}\right)^p\,dx,x\right.}{n}$$

$$= \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(2-\frac{2i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a}{2-ibnp}$$

Mathematica [A] (verified)

Time = 0.70 (sec) , antiderivative size = 144, normalized size of antiderivative = 1.26

$$\int x\sin^p\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= \frac{ix^2\left(2-2e^{2ia}(cx^n)^{2ib}\right)^{-p}\left(-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\right)^p\text{Hypergeometric2F1}\left(-\frac{i}{bn}-\frac{p}{2},-p,1-\frac{i}{bn}\right.}{2i+bnp}$$

```
[In] Integrate[x*Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (I*x^2*(((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b))
)^p*Hypergeometric2F1[(-I)/(b*n) - p/2, -p, 1 - I/(b*n) - p/2, E^((2*I)*a)*
(c*x^n)^((2*I)*b)])/((2*I + b*n*p)*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Maple [F]

$$\int x\sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(x*sin(a+b*ln(c*x^n))^p,x)
[Out] int(x*sin(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int x\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(x*sin(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int x\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*sin(a+b*ln(c*x**n))**p,x)
[Out] Integral(x*sin(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int x\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sin\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(x*sin(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int x \sin^p(a + b\log(cx^n)) \, dx = \int x \sin(b\log(cx^n) + a)^p \, dx$$

```
[In] integrate(x*sin(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(x*sin(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int x \sin^p(a + b\log(cx^n)) \, dx = \int x \sin(a + b \ln(c x^n))^p \, dx$$

```
[In] int(x*sin(a + b*log(c*x^n))^p,x)
[Out] int(x*sin(a + b*log(c*x^n))^p, x)
```

3.82 $\int \sin^p(a+b\log(cx^n))\,dx$

Optimal result 1273
Rubi [A] (verified) 1273
Mathematica [A] (verified) 1274
Maple [F] 1275
Fricas [F] 1275
Sympy [F] 1275
Maxima [F] 1275
Giac [F] 1276
Mupad [F(-1)] 1276

Optimal result

Integrand size = 13, antiderivative size = 112

$$\int \sin^p(a+b\log(cx^n))\,dx = \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{1-ibnp}$$

```
[Out] x*hypergeom([-p, 1/2*(-I-b*n*p)/b/n],[1-1/2*I/b/n-1/2*p],exp(2*I*a)*(c*x^n)
^(2*I*b))*sin(a+b*ln(c*x^n))^p/(1-I*b*n*p)/((1-exp(2*I*a)*(c*x^n)^(2*I*b))^
p)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 112, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4571, 4579, 371}

$$\int \sin^p(a+b\log(cx^n))\,dx = \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{bnp+i}{2bn},\frac{1}{2}\left(-p-\frac{i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{1-ibnp}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x*Hypergeometric2F1[-p, -1/2*(I + b*n*p)/(b*n), (2 - I/(b*n) - p)/2, E^((2
*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^p)/((1 - I*b*n*p)*(1 - E^((
2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4571

```
Int[Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sin[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sin^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}+ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\sin^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}-ibp}\left(1-e^{2ia}x^{2ib}\right)^p\,dx,x,\right.}{n}$$

$$= \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p\left(a+b\log\right.}{1-ibnp}$$

Mathematica [A] (verified)

Time = 0.52 (sec) , antiderivative size = 146, normalized size of antiderivative = 1.30

$$\int\sin^p\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$= \frac{ix\left(2-2e^{2ia}(cx^n)^{2ib}\right)^{-p}\left(-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\right)^p\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},1-\frac{i}{2bn}\right.}{i+bnp}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (I*x*(((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b)))^
p*Hypergeometric2F1[-p, -1/2*(I + b*n*p)/(b*n), 1 - (I/2)/(b*n) - p/2, E^((
2*I)*a)*(c*x^n)^((2*I)*b)])/((I + b*n*p)*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*
b))^p)
```

Maple [F]

$$\int \sin \left(a+b \ln \left(c\,x^{n}\right)\right)^{p}dx$$

[In] int(sin(a+b*ln(c*x^n))^p,x)

[Out] int(sin(a+b*ln(c*x^n))^p,x)

Fricas [F]

$$\int \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sin\left(b\log\left(cx^n\right)+a\right)^p\,dx$$

[In] integrate(sin(a+b*log(c*x^n))^p,x, algorithm="fricas")

[Out] integral(sin(b*log(c*x^n) + a)^p, x)

Sympy [F]

$$\int \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sin^p\left(a+b\log\left(cx^n\right)\right)dx$$

[In] integrate(sin(a+b*ln(c*x**n))**p,x)

[Out] Integral(sin(a + b*log(c*x**n))**p, x)

Maxima [F]

$$\int \sin^p\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sin\left(b\log\left(cx^n\right)+a\right)^p\,dx$$

[In] integrate(sin(a+b*log(c*x^n))^p,x, algorithm="maxima")

[Out] integrate(sin(b*log(c*x^n) + a)^p, x)

Giac [F]

$$\int \sin^p(a+b\log(cx^n))\,dx = \int \sin(b\log(cx^n)+a)^p\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sin^p(a+b\log(cx^n))\,dx = \int \sin(a+b\,\ln(c\,x^n))^p\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^p,x)
[Out] int(sin(a + b*log(c*x^n))^p, x)
```

3.83 $\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx$

Optimal result . . . 1277
Rubi [A] (verified) . . . 1277
Mathematica [A] (verified) . . . 1278
Maple [F] . . . 1278
Fricas [F] . . . 1278
Sympy [F] . . . 1279
Maxima [F] . . . 1279
Giac [F] . . . 1279
Mupad [B] (verification not implemented) . . . 1279

Optimal result

Integrand size = 17, antiderivative size = 86

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx = \frac{\cos(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1+p}{2},\frac{3+p}{2},\sin^2(a+b\log(cx^n))\right)\sin^{1+p}(a+b\log(cx^n))}{bn(1+p)\sqrt{\cos^2(a+b\log(cx^n))}}$$

```
[Out] cos(a+b*ln(c*x^n))*hypergeom([1/2, 1/2+1/2*p],[3/2+1/2*p],sin(a+b*ln(c*x^n)
)^2)*sin(a+b*ln(c*x^n))^(p+1)/b/n/(p+1)/(cos(a+b*ln(c*x^n))^2)^(1/2)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {2722}

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx = \frac{\cos(a+b\log(cx^n))\sin^{p+1}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{p+1}{2},\frac{p+3}{2},\sin^2(a+b\log(cx^n))\right)}{bn(p+1)\sqrt{\cos^2(a+b\log(cx^n))}}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^p/x,x]
```

```
[Out] (Cos[a + b*Log[c*x^n]]*Hypergeometric2F1[1/2, (1 + p)/2, (3 + p)/2, Sin[a +
 b*Log[c*x^n]]^2]*Sin[a + b*Log[c*x^n]]^(1 + p))/(b*n*(1 + p)*Sqrt[Cos[a +
b*Log[c*x^n]]^2])
```

Rule 2722

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Sin[c + d*x])^(n + 1)/(b*d*(n + 1)*Sqrt[Cos[c + d*x]^2]))*Hypergeometric2
```

```
F1[1/2, (n + 1)/2, (n + 3)/2, Sin[c + d*x]^2], x] /; FreeQ[{b, c, d, n}, x]
 &&  !IntegerQ[2*n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \sin^p(a+bx)\,dx, x, \log(cx^n)\right)}{n}$$

$$= \frac{\cos(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1+p}{2},\frac{3+p}{2},\sin^2(a+b\log(cx^n))\right)\sin^{1+p}(a+b\log(cx^n))}{bn(1+p)\sqrt{\cos^2(a+b\log(cx^n))}}$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.00

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{\sqrt{\cos^2(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1+p}{2},\frac{3+p}{2},\sin^2(a+b\log(cx^n))\right)\sec(a+b\log(cx^n))\sin^{1+p}(a+b\log(cx^n))}{bn(1+p)}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^p/x,x]
[Out] (Sqrt[Cos[a + b*Log[c*x^n]]^2]*Hypergeometric2F1[1/2, (1 + p)/2, (3 + p)/2,
 Sin[a + b*Log[c*x^n]]^2]*Sec[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]]^(1 +
p))/(b*n*(1 + p))
```

Maple [F]

$$\int \frac{\sin(a+b\ln(c\,x^n))^p}{x}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^p/x,x)
[Out] int(sin(a+b*ln(c*x^n))^p/x,x)
```

Fricas [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx = \int \frac{\sin(b\log(cx^n)+a)^p}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x,x, algorithm="fricas")
[Out] integral(sin(b*log(c*x^n) + a)^p/x, x)
```

Sympy [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx=\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**p/x,x)
[Out] Integral(sin(a + b*log(c*x**n))**p/x, x)
```

Maxima [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx=\int \frac{\sin(b\log(cx^n)+a)^p}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x,x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x, x)
```

Giac [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx=\int \frac{\sin(b\log(cx^n)+a)^p}{x}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x, x)
```

Mupad [B] (verification not implemented)

Time = 27.14 (sec) , antiderivative size = 77, normalized size of antiderivative = 0.90

$$\int \frac{\sin^p(a+b\log(cx^n))}{x}\,dx=-\frac{\cos(a+b\,\ln(c\,x^n))\,\sin(a+b\,\ln(c\,x^n))^{p+1}\,{}_2\mathrm{F}_1\left(\frac{1}{2},\frac{1}{2}-\frac{p}{2};\ \frac{3}{2};\ \cos(a+b\,\ln(c\,x^n))^2\right)}{b\,n\,\left(\sin(a+b\,\ln(c\,x^n))^2\right)^{\frac{p}{2}+\frac{1}{2}}}$$

```
[In] int(sin(a + b*log(c*x^n))^p/x,x)
[Out] -(cos(a + b*log(c*x^n))*sin(a + b*log(c*x^n))^(p + 1)*hypergeom([1/2, 1/2 -
 p/2], 3/2, cos(a + b*log(c*x^n))^2))/(b*n*(sin(a + b*log(c*x^n))^2)^(p/2 +
 1/2))
```

3.84 $\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 1280
Rubi [A] (verified) 1280
Mathematica [A] (verified) 1281
Maple [F] 1282
Fricas [F] 1282
Sympy [F] 1282
Maxima [F] 1282
Giac [F] 1283
Mupad [F(-1)] 1283

Optimal result

Integrand size = 17, antiderivative size = 115

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx = -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{i}{bn}-p\right),-p,\frac{1}{2}\left(2+\frac{i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{(1+ibnp)x}$$

```
[Out] -hypergeom([-p, 1/2*I/b/n-1/2*p],[1+1/2*I/b/n-1/2*p],exp(2*I*a)*(c*x^n)^(2*
I*b))*sin(a+b*ln(c*x^n))^p/(1+I*b*n*p)/x/((1-exp(2*I*a)*(c*x^n)^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 115, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4581, 4579, 371}

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx = -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{i}{bn}-p\right),-p,\frac{1}{2}\left(-p+\frac{i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{x(1+ibnp)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^p/x^2,x]
```

```
[Out] -((Hypergeometric2F1[(I/(b*n) - p)/2, -p, (2 + I/(b*n) - p)/2, E^((2*I)*a)*
(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^p)/((1 + I*b*n*p)*x*(1 - E^((2*I)*
a)*(c*x^n)^((2*I)*b))^p))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sin^p(a+b\log(x))\,dx, x, cx^n\right)}{nx}$$

$$= \frac{\left((cx^n)^{\frac{1}{n}+ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\sin^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{1}{n}-ibp}\left(1-e^{2ia}x^{2ib}\right)^p\,dx, x, c\right.}{nx}$$

$$= -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{i}{bn}-p\right), -p, \frac{1}{2}\left(2+\frac{i}{bn}-p\right), e^{2ia}(cx^n)^{2ib}\right)\sin^p\left(a+\right.}{(1+ibnp)x}$$

Mathematica [A] (verified)

Time = 0.56 (sec) , antiderivative size = 146, normalized size of antiderivative = 1.27

$$\int \frac{\sin^p\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx$$

$$= \frac{\left(2-2e^{2ia}(cx^n)^{2ib}\right)^{-p}\left(-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\right)^p\text{Hypergeometric2F1}\left(\frac{i}{2bn}-\frac{p}{2}, -p, 1+\frac{i}{2bn}-\right.}{(-1-ibnp)x}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^p/x^2,x]
[Out] ((((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b)))^p*Hy
pergeometric2F1[(I/2)/(b*n) - p/2, -p, 1 + (I/2)/(b*n) - p/2, E^((2*I)*a)*(
c*x^n)^((2*I)*b)])/((-1 - I*b*n*p)*x*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^
p)
```

Maple [F]

$$\int \frac{\sin(a+b\ln(c\,x^n))^p}{x^2}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^p/x^2,x)
[Out] int(sin(a+b*ln(c*x^n))^p/x^2,x)
```

Fricas [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(b\log(cx^n)+a)^p}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^2,x, algorithm="fricas")
[Out] integral(sin(b*log(c*x^n) + a)^p/x^2, x)
```

Sympy [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**p/x**2,x)
[Out] Integral(sin(a + b*log(c*x**n))**p/x**2, x)
```

Maxima [F]

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(b\log(cx^n)+a)^p}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^2,x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x^2, x)
```

Giac [F]

$$\int \frac{\sin^p(a + b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(b\log(cx^n) + a)^p}{x^2}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^2,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^p(a + b\log(cx^n))}{x^2}\,dx = \int \frac{\sin(a + b\,\ln(c\,x^n))^p}{x^2}\,dx$$

```
[In] int(sin(a + b*log(c*x^n))^p/x^2,x)
[Out] int(sin(a + b*log(c*x^n))^p/x^2, x)
```

3.85 $\int \frac{\sin^p(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 1284
Rubi [A] (verified) 1284
Mathematica [A] (verified) 1285
Maple [F] 1286
Fricas [F] 1286
Sympy [F] 1286
Maxima [F] 1286
Giac [F] 1287
Mupad [F(-1)] 1287

Optimal result

Integrand size = 17, antiderivative size = 115

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^3}\,dx = -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(2+\frac{2i}{bn}-p\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{(2+ibnp)x^2}$$

```
[Out] -hypergeom([-p, I/b/n-1/2*p],[1+I/b/n-1/2*p],exp(2*I*a)*(c*x^n)^(2*I*b))*si
n(a+b*ln(c*x^n))^p/(2+I*b*n*p)/x^2/((1-exp(2*I*a)*(c*x^n)^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 115, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4581, 4579, 371}

$$\int \frac{\sin^p(a+b\log(cx^n))}{x^3}\,dx = -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(-p+\frac{2i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\sin^p(a+b\log(cx^n))}{x^2(2+ibnp)}$$

```
[In] Int[Sin[a + b*Log[c*x^n]]^p/x^3,x]
```

```
[Out] -((Hypergeometric2F1[((2*I)/(b*n) - p)/2, -p, (2 + (2*I)/(b*n) - p)/2, E^((
2*I)*a)*(c*x^n)^((2*I)*b)]*Sin[a + b*Log[c*x^n]]^p)/((2 + I*b*n*p)*x^2*(1 -
 E^((2*I)*a)*(c*x^n)^((2*I)*b))^p))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4579

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :
> Dist[Sin[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rule 4581

```
Int[((e_.)*(x_))^(m_.)*Sin[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sin[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sin^p(a+b\log(x))\,dx, x, cx^n\right)}{nx^2}$$

$$= \frac{\left((cx^n)^{\frac{2}{n}+ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\sin^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{2}{n}-ibp}\left(1-e^{2ia}x^{2ib}\right)^p\,dx, x, c\right.}{nx^2}$$

$$= -\frac{\left(1-e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(\frac{2i}{bn}-p\right), -p, \frac{1}{2}\left(2+\frac{2i}{bn}-p\right), e^{2ia}(cx^n)^{2ib}\right)\sin^p\left(a+\right.}{(2+ibnp)x^2}$$

Mathematica [A] (verified)

Time = 0.60 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.23

$$\int \frac{\sin^p\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx$$

$$= \frac{\left(2-2e^{2ia}(cx^n)^{2ib}\right)^{-p}\left(-ie^{-ia}(cx^n)^{-ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\right)^p\text{Hypergeometric2F1}\left(\frac{i}{bn}-\frac{p}{2}, -p, 1+\frac{i}{bn}-\frac{p}{2}\right.}{(-2-ibnp)x^2}$$

```
[In] Integrate[Sin[a + b*Log[c*x^n]]^p/x^3,x]
```

```
[Out] ((((-I)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))/(E^(I*a)*(c*x^n)^(I*b)))^p*Hy
pergeometric2F1[I/(b*n) - p/2, -p, 1 + I/(b*n) - p/2, E^((2*I)*a)*(c*x^n)^(
(2*I)*b)])/((-2 - I*b*n*p)*x^2*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Maple [F]

$$\int \frac{\sin\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}}{x^{3}}dx$$

```
[In] int(sin(a+b*ln(c*x^n))^p/x^3,x)
[Out] int(sin(a+b*ln(c*x^n))^p/x^3,x)
```

Fricas [F]

$$\int \frac{\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\sin\left(b\log\left(cx^{n}\right)+a\right)^{p}}{x^{3}}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^3,x, algorithm="fricas")
[Out] integral(sin(b*log(c*x^n) + a)^p/x^3, x)
```

Sympy [F]

$$\int \frac{\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx$$

```
[In] integrate(sin(a+b*ln(c*x**n))**p/x**3,x)
[Out] Integral(sin(a + b*log(c*x**n))**p/x**3, x)
```

Maxima [F]

$$\int \frac{\sin^{p}\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\sin\left(b\log\left(cx^{n}\right)+a\right)^{p}}{x^{3}}\,dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^3,x, algorithm="maxima")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x^3, x)
```

Giac [F]

$$\int \frac{\sin^p(a + b\log(cx^n))}{x^3} dx = \int \frac{\sin(b\log(cx^n) + a)^p}{x^3} dx$$

```
[In] integrate(sin(a+b*log(c*x^n))^p/x^3,x, algorithm="giac")
[Out] integrate(sin(b*log(c*x^n) + a)^p/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sin^p(a + b\log(cx^n))}{x^3} dx = \int \frac{\sin(a + b\ln(c\,x^n))^p}{x^3} dx$$

```
[In] int(sin(a + b*log(c*x^n))^p/x^3,x)
[Out] int(sin(a + b*log(c*x^n))^p/x^3, x)
```

3.86 $\int x^2 \cos(a+b\log(cx^n))\,dx$

Optimal result 1288
Rubi [A] (verified) 1288
Mathematica [A] (verified) 1289
Maple [A] (verified) 1289
Fricas [A] (verification not implemented) 1289
Sympy [F] 1290
Maxima [B] (verification not implemented) 1290
Giac [B] (verification not implemented) 1291
Mupad [B] (verification not implemented) 1292

Optimal result

Integrand size = 15, antiderivative size = 56

$$\int x^2 \cos(a+b\log(cx^n))\,dx = \frac{3x^3\cos(a+b\log(cx^n))}{9+b^2n^2} + \frac{bnx^3\sin(a+b\log(cx^n))}{9+b^2n^2}$$

```
[Out] 3*x^3*cos(a+b*ln(c*x^n))/(b^2*n^2+9)+b*n*x^3*sin(a+b*ln(c*x^n))/(b^2*n^2+9)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4574}

$$\int x^2 \cos(a+b\log(cx^n))\,dx = \frac{bnx^3\sin(a+b\log(cx^n))}{b^2n^2+9} + \frac{3x^3\cos(a+b\log(cx^n))}{b^2n^2+9}$$

```
[In] Int[x^2*Cos[a + b*Log[c*x^n]],x]
```

```
[Out] (3*x^3*Cos[a + b*Log[c*x^n]])/(9 + b^2*n^2) + (b*n*x^3*Sin[a + b*Log[c*x^n]
])/(9 + b^2*n^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{3x^3\cos(a+b\log(cx^n))}{9+b^2n^2} + \frac{bnx^3\sin(a+b\log(cx^n))}{9+b^2n^2}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.77

$$\int x^2 \cos \left(a+b \log \left(c x^n\right)\right) \, dx=\frac{x^3 \left(3 \cos \left(a+b \log \left(c x^n\right)\right)+b n \sin \left(a+b \log \left(c x^n\right)\right)\right)}{9+b^2 n^2}$$

```
[In] Integrate[x^2*Cos[a + b*Log[c*x^n]],x]
[Out] (x^3*(3*Cos[a + b*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]]))/(9 + b^2*n^2)
```

Maple [A] (verified)

Time = 2.53 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.79

method	result
parallelrisch	$\frac{x^{3} \left(\sin \left(a +b \ln \left(c \,x^{n}\right)\right) b n +3 \cos \left(a +b \ln \left(c \,x^{n}\right)\right)\right)}{b^{2} n^{2}+9}$
parts	$\frac{x^{2} {\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)}{n}-\frac{\ln \left(c \right)}{n}} \cos \left(a +b \ln \left(c \,x^{n}\right)\right)}{n^{2} \left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{x^{2} b \,{\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)}{n}-\frac{\ln \left(c \right)}{n}} \sin \left(a +b \ln \left(c \,x^{n}\right)\right)}{n \left(\frac{1}{n^{2}}+b^{2}\right)}-\frac{2 \left(\frac{n \left(\frac{3 c^{-\frac{1}{n}} {\mathrm e}^{\frac{\ln \left(c \,x^{n}\right)-n \ln \left(x \right)}{n}}}{b^{2} n^{2}+9} x^{3}-\frac{3 c^{-\frac{1}{n}} {\mathrm e}^{\frac{\ln (}{}}}{}\right.}{}\right.}{}$

```
[In] int(x^2*cos(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
[Out] x^3/(b^2*n^2+9)*(sin(a+b*ln(c*x^n))*b*n+3*cos(a+b*ln(c*x^n)))
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.86

$$\int x^2 \cos \left(a+b \log \left(c x^n\right)\right) \, dx=\frac{b n x^{3} \sin \left(b n \log \left(x\right) + b \log \left(c\right) + a\right) + 3 \, x^{3} \cos \left(b n \log \left(x\right) + b \log \left(c\right) + a\right)}{b^{2} n^{2} + 9}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] (b*n*x^3*sin(b*n*log(x) + b*log(c) + a) + 3*x^3*cos(b*n*log(x) + b*log(c) +
 a))/(b^2*n^2 + 9)
```

Sympy [F]

$$\int x^2\cos\left(a+b\log\left(cx^n\right)\right)\,dx=\begin{cases}\int x^2\cos\left(a-\frac{3i\log\left(cx^n\right)}{n}\right)dx & \text{for } b=-\frac{3i}{n}\\ \int x^2\cos\left(a+\frac{3i\log\left(cx^n\right)}{n}\right)dx & \text{for } b=\frac{3i}{n}\\ \frac{bnx^3\sin\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+9}+\frac{3x^3\cos\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+9} & \text{otherwise}\end{cases}$$

```
[In] integrate(x**2*cos(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((Integral(x**2*cos(a - 3*I*log(c*x**n)/n), x), Eq(b, -3*I/n)), (I
ntegral(x**2*cos(a + 3*I*log(c*x**n)/n), x), Eq(b, 3*I/n)), (b*n*x**3*sin(a
 + b*log(c*x**n))/(b**2*n**2 + 9) + 3*x**3*cos(a + b*log(c*x**n))/(b**2*n**
2 + 9), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 218 vs. 2(56) = 112.

Time = 0.23 (sec) , antiderivative size = 218, normalized size of antiderivative = 3.89

$$\int x^2\cos\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$=\frac{\left(\left(b\cos\left(b\log\left(c\right)\right)\sin\left(2\,b\log\left(c\right)\right)-b\cos\left(2\,b\log\left(c\right)\right)\sin\left(b\log\left(c\right)\right)+b\sin\left(b\log\left(c\right)\right)\right)n+3\,\cos\left(2\,b\log\left(c\right)\right)\cos}{}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] 1/2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) +
b*sin(b*log(c)))*n + 3*cos(2*b*log(c))*cos(b*log(c)) + 3*sin(2*b*log(c))*si
n(b*log(c)) + 3*cos(b*log(c)))*x^3*cos(b*log(x^n) + a) + ((b*cos(2*b*log(c)
)*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) + b*cos(b*log(c)))*n - 3*
cos(b*log(c))*sin(2*b*log(c)) + 3*cos(2*b*log(c))*sin(b*log(c)) - 3*sin(b*l
og(c)))*x^3*sin(b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^
2)*n^2 + 9*cos(b*log(c))^2 + 9*sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 923 vs. $2(56) = 112$.

Time = 0.35 (sec) , antiderivative size = 923, normalized size of antiderivative = 16.48

$$\int x^2 \cos(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n)),x, algorithm="giac")
[Out] -1/2*(2*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 2*b*n*x^3*
e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 2*b*n*x^3*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(1/2*a)^2 + 2*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/2*a)^2 - 3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 -
 3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 2*b*n*x^3*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c))) - 2*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
- 2*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(1/2*a) - 2*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/2*a) + 3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*x^
3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))*tan(1/2*a) + 12*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) +
3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1
/2*a)^2 + 3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(1/2*a)^2 - 3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b) - 3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b))/(b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/2*a)^2 + b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2
*tan(1/2*a)^2 + b^2*n^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/2*a)^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*tan(1/2
*a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 26.09 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.77

$$\int x^2 \cos (a + b \log (cx^n)) \, dx = \frac{x^3 \left(3 \cos \left(a + b \ln \left(c\, x^n\right)\right) + b\, n \sin \left(a + b \ln \left(c\, x^n\right)\right)\right)}{b^2\, n^2 + 9}$$

```
[In] int(x^2*cos(a + b*log(c*x^n)),x)
[Out] (x^3*(3*cos(a + b*log(c*x^n)) + b*n*sin(a + b*log(c*x^n))))/(b^2*n^2 + 9)
```

3.87 $\int x \cos(a+b\log(cx^n))\,dx$

Optimal result 1293
Rubi [A] (verified) 1293
Mathematica [A] (verified) 1294
Maple [A] (verified) 1294
Fricas [A] (verification not implemented) 1294
Sympy [F] 1295
Maxima [B] (verification not implemented) 1295
Giac [B] (verification not implemented) 1296
Mupad [B] (verification not implemented) 1297

Optimal result

Integrand size = 13, antiderivative size = 56

$$\int x\cos(a+b\log(cx^n))\,dx=\frac{2x^2\cos(a+b\log(cx^n))}{4+b^2n^2}+\frac{bnx^2\sin(a+b\log(cx^n))}{4+b^2n^2}$$

```
[Out] 2*x^2*cos(a+b*ln(c*x^n))/(b^2*n^2+4)+b*n*x^2*sin(a+b*ln(c*x^n))/(b^2*n^2+4)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.077, Rules used = {4574}

$$\int x\cos(a+b\log(cx^n))\,dx=\frac{bnx^2\sin(a+b\log(cx^n))}{b^2n^2+4}+\frac{2x^2\cos(a+b\log(cx^n))}{b^2n^2+4}$$

```
[In] Int[x*Cos[a + b*Log[c*x^n]],x]
```

```
[Out] (2*x^2*Cos[a + b*Log[c*x^n]])/(4 + b^2*n^2) + (b*n*x^2*Sin[a + b*Log[c*x^n]
])/(4 + b^2*n^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral}=\frac{2x^2\cos(a+b\log(cx^n))}{4+b^2n^2}+\frac{bnx^2\sin(a+b\log(cx^n))}{4+b^2n^2}$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.77

$$\int x\cos(a+b\log(cx^n))\,dx=\frac{x^2(2\cos(a+b\log(cx^n))+bn\sin(a+b\log(cx^n)))}{4+b^2n^2}$$

```
[In] Integrate[x*Cos[a + b*Log[c*x^n]],x]
[Out] (x^2*(2*Cos[a + b*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]]))/(4 + b^2*n^2)
```

Maple [A] (verified)

Time = 1.98 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.79

method	result
parallelrisch	$\frac{x^2(\sin(a+b\ln(cx^n))bn+2\cos(a+b\ln(cx^n)))}{b^2n^2+4}$
parts	$\frac{x\,\mathrm{e}^{\frac{\ln(cx^n)}{n}-\frac{\ln(c)}{n}}\cos(a+b\ln(cx^n))}{n^2\left(\frac{1}{n^2}+b^2\right)}+\frac{xb\,\mathrm{e}^{\frac{\ln(cx^n)}{n}-\frac{\ln(c)}{n}}\sin(a+b\ln(cx^n))}{n\left(\frac{1}{n^2}+b^2\right)}-\frac{b\left(\frac{bn\,c^{-\frac{1}{n}}\mathrm{e}^{\frac{\ln(cx^n)-n\ln(x)}{n}}x^2\tan\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right.}{b^2n^2+4}\right.}{\left(\right.}$

```
[In] int(x*cos(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
[Out] x^2*(sin(a+b*ln(c*x^n))*b*n+2*cos(a+b*ln(c*x^n)))/(b^2*n^2+4)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.86

$$\int x\cos(a+b\log(cx^n))\,dx=\frac{bnx^2\sin(bn\log(x)+b\log(c)+a)+2\,x^2\cos(bn\log(x)+b\log(c)+a)}{b^2n^2+4}$$

```
[In] integrate(x*cos(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] (b*n*x^2*sin(b*n*log(x) + b*log(c) + a) + 2*x^2*cos(b*n*log(x) + b*log(c) +
 a))/(b^2*n^2 + 4)
```

Sympy [F]

$$\int x\cos\left(a+b\log\left(cx^n\right)\right)\,dx=\begin{cases}\int x\cos\left(a-\frac{2i\log\left(cx^n\right)}{n}\right)dx & \text{for } b=-\frac{2i}{n}\\ \int x\cos\left(a+\frac{2i\log\left(cx^n\right)}{n}\right)dx & \text{for } b=\frac{2i}{n}\\ \frac{bnx^2\sin\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+4}+\frac{2x^2\cos\left(a+b\log\left(cx^n\right)\right)}{b^2n^2+4} & \text{otherwise}\end{cases}$$

```
[In] integrate(x*cos(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((Integral(x*cos(a - 2*I*log(c*x**n)/n), x), Eq(b, -2*I/n)), (Inte
gral(x*cos(a + 2*I*log(c*x**n)/n), x), Eq(b, 2*I/n)), (b*n*x**2*sin(a + b*l
og(c*x**n))/(b**2*n**2 + 4) + 2*x**2*cos(a + b*log(c*x**n))/(b**2*n**2 + 4)
, True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 218 vs. $2(56) = 112$.

Time = 0.25 (sec) , antiderivative size = 218, normalized size of antiderivative = 3.89

$$\int x\cos\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$=\frac{((b\cos(b\log(c))\sin(2b\log(c))-b\cos(2b\log(c))\sin(b\log(c))+b\sin(b\log(c)))n+2\cos(2b\log(c))\,\mathrm{co}}{}$$

```
[In] integrate(x*cos(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] 1/2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) +
b*sin(b*log(c)))*n + 2*cos(2*b*log(c))*cos(b*log(c)) + 2*sin(2*b*log(c))*si
n(b*log(c)) + 2*cos(b*log(c)))*x^2*cos(b*log(x^n) + a) + ((b*cos(2*b*log(c)
)*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) + b*cos(b*log(c)))*n - 2*
cos(b*log(c))*sin(2*b*log(c)) + 2*cos(2*b*log(c))*sin(b*log(c)) - 2*sin(b*l
og(c)))*x^2*sin(b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^
2)*n^2 + 4*cos(b*log(c))^2 + 4*sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 915 vs. $2(56) = 112$.

Time = 0.33 (sec) , antiderivative size = 915, normalized size of antiderivative = 16.34

$$\int x \cos(a + b \log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x*cos(a+b*log(c*x^n)),x, algorithm="giac")
[Out] -(b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + b*n*x^2*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))*tan(1/2*a)^2 + b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*
a)^2 - x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - x^2*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c))) - b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - b*n*x^2*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - b*n*x^2*
e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)
 + x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + x^2*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + 4*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 4*x^2*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + x^2*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + x^2*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - x^2*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - x^2*e^(-1/2*pi*b*n
*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b))/(b^2*n^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*tan(1/2*a)^2 + b^2*n^2 + 4*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2 + 4*tan(1/2*a)^2 + 4)
```

Mupad [B] (verification not implemented)

Time = 26.26 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.77

$$\int x\cos\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^2\,\left(2\,\cos\left(a+b\,\ln\left(c\,x^n\right)\right)+b\,n\,\sin\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}{b^2\,n^2+4}$$

```
[In] int(x*cos(a + b*log(c*x^n)),x)
[Out] (x^2*(2*cos(a + b*log(c*x^n)) + b*n*sin(a + b*log(c*x^n))))/(b^2*n^2 + 4)
```

3.88 $\int \cos (a+b \log (c x^n)) \, dx$

Optimal result 1298
Rubi [A] (verified) 1298
Mathematica [A] (verified) 1299
Maple [A] (verified) 1299
Fricas [A] (verification not implemented) 1299
Sympy [F] 1300
Maxima [B] (verification not implemented) 1300
Giac [B] (verification not implemented) 1300
Mupad [B] (verification not implemented) 1301

Optimal result

Integrand size = 11, antiderivative size = 51

$$\int \cos (a+b \log (c x^n)) \, dx=\frac{x \cos (a+b \log (c x^n))}{1+b^2 n^2}+\frac{b n x \sin (a+b \log (c x^n))}{1+b^2 n^2}$$

```
[Out] x*cos(a+b*ln(c*x^n))/(b^2*n^2+1)+b*n*x*sin(a+b*ln(c*x^n))/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.091, Rules used = {4564}

$$\int \cos (a+b \log (c x^n)) \, dx=\frac{b n x \sin (a+b \log (c x^n))}{b^2 n^2+1}+\frac{x \cos (a+b \log (c x^n))}{b^2 n^2+1}$$

```
[In] Int[Cos[a + b*Log[c*x^n]],x]
```

```
[Out] (x*Cos[a + b*Log[c*x^n]])/(1 + b^2*n^2) + (b*n*x*Sin[a + b*Log[c*x^n]])/(1
+ b^2*n^2)
```

Rule 4564

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] + Simp[b*d*n*x*(Sin[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rubi steps

$$\text{integral}=\frac{x \cos (a+b \log (c x^n))}{1+b^2 n^2}+\frac{b n x \sin (a+b \log (c x^n))}{1+b^2 n^2}$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.76

$$\int \cos \left(a+b \log \left(c x^n\right)\right) \, dx=\frac{x(\cos \left(a+b \log \left(c x^n\right)\right)+b n \sin \left(a+b \log \left(c x^n\right)\right))}{1+b^2 n^2}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]],x]
[Out] (x*(Cos[a + b*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]]))/(1 + b^2*n^2)
```

Maple [A] (verified)

Time = 1.10 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.78

method	result	size
parallelrisch	$\frac{x(\sin(a+b\ln(c\,x^{n}))bn+\cos(a+b\ln(c\,x^{n})))}{b^{2}n^{2}+1}$	40
default	$\frac{\frac{\mathrm{e}^{\frac{\ln(c\,x^{n})}{n}-\frac{\ln(c)}{n}}\cos(a+b\ln(c\,x^{n}))}{n\left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{b\,\mathrm{e}^{\frac{\ln(c\,x^{n})}{n}-\frac{\ln(c)}{n}}\sin(a+b\ln(c\,x^{n}))}{\frac{1}{n^{2}}+b^{2}}}{n}$	90

```
[In] int(cos(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
[Out] x/(b^2*n^2+1)*(sin(a+b*ln(c*x^n))*b*n+cos(a+b*ln(c*x^n)))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.84

$$\int \cos \left(a+b \log \left(c x^n\right)\right) \, dx \\ =\frac{b n x \sin \left(b n \log \left(x\right)+b \log \left(c\right)+a\right)+x \cos \left(b n \log \left(x\right)+b \log \left(c\right)+a\right)}{b^{2} n^{2}+1}$$

```
[In] integrate(cos(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] (b*n*x*sin(b*n*log(x) + b*log(c) + a) + x*cos(b*n*log(x) + b*log(c) + a))/(
b^2*n^2 + 1)
```

Sympy [F]

$$\int \cos(a+b\log(cx^n))\,dx = \begin{cases} \int \cos\left(a - \frac{i\log(cx^n)}{n}\right)dx & \text{for } b = -\frac{i}{n} \\ \int \cos\left(a + \frac{i\log(cx^n)}{n}\right)dx & \text{for } b = \frac{i}{n} \\ \frac{bnx\sin(a+b\log(cx^n))}{b^2n^2+1} + \frac{x\cos(a+b\log(cx^n))}{b^2n^2+1} & \text{otherwise} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((Integral(cos(a - I*log(c*x**n)/n), x), Eq(b, -I/n)), (Integral(c
os(a + I*log(c*x**n)/n), x), Eq(b, I/n)), (b*n*x*sin(a + b*log(c*x**n))/(b*
*2*n**2 + 1) + x*cos(a + b*log(c*x**n))/(b**2*n**2 + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 205 vs. $2(51) = 102$.

Time = 0.23 (sec) , antiderivative size = 205, normalized size of antiderivative = 4.02

$$\int \cos(a+b\log(cx^n))\,dx = \frac{((b\cos(b\log(c))\sin(2b\log(c)) - b\cos(2b\log(c))\sin(b\log(c)) + b\sin(b\log(c)))n + \cos(2b\log(c))\cos(b\cdots}{\cdots}$$

```
[In] integrate(cos(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] 1/2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) +
b*sin(b*log(c)))*n + cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*
log(c)) + cos(b*log(c)))*x*cos(b*log(x^n) + a) + ((b*cos(2*b*log(c))*cos(b*
log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) + b*cos(b*log(c)))*n - cos(b*log(
c))*sin(2*b*log(c)) + cos(2*b*log(c))*sin(b*log(c)) - sin(b*log(c)))*x*sin(
b*log(x^n) + a))/((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2 + cos(b*l
og(c))^2 + sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 878 vs. $2(51) = 102$.

Time = 0.30 (sec) , antiderivative size = 878, normalized size of antiderivative = 17.22

$$\int \cos(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n)),x, algorithm="giac")
```

```
[Out] -1/2*(2*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 2*b*n*x*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 2*b*n*x*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))*tan(1/2*a)^2 + 2*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
1/2*a)^2 - x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - x*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 2*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c))) - 2*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b*n*x*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 2*b*n*x*
e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)
 + x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2 + 4*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 4*x*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))*tan(1/2*a) + x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - x*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b))/(b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2 + b^2*n^2*tan(1/2*a)^2 + b^2*n^2 + tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2 + tan(1/2*a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 26.94 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.76

$$\int \cos (a+b\log (cx^n))\,dx=\frac{x\left(\cos \left(a+b\,\ln \left(c\,x^n\right)\right)+b\,n\,\sin \left(a+b\,\ln \left(c\,x^n\right)\right)\right)}{b^2\,n^2+1}$$

```
[In] int(cos(a + b*log(c*x^n)),x)
```

```
[Out] (x*(cos(a + b*log(c*x^n)) + b*n*sin(a + b*log(c*x^n))))/(b^2*n^2 + 1)
```

3.89 $\int \frac{\cos(a+b\log(cx^n))}{x}\,dx$

Optimal result 1302
Rubi [A] (verified) 1302
Mathematica [B] (verified) 1303
Maple [A] (verified) 1303
Fricas [A] (verification not implemented) 1303
Sympy [B] (verification not implemented) 1304
Maxima [A] (verification not implemented) 1304
Giac [F] 1304
Mupad [B] (verification not implemented) 1305

Optimal result

Integrand size = 15, antiderivative size = 18

$$\int \frac{\cos(a+b\log(cx^n))}{x}\,dx = \frac{\sin(a+b\log(cx^n))}{bn}$$

```
[Out] sin(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {2717}

$$\int \frac{\cos(a+b\log(cx^n))}{x}\,dx = \frac{\sin(a+b\log(cx^n))}{bn}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]/x,x]
```

```
[Out] Sin[a + b*Log[c*x^n]]/(b*n)
```

Rule 2717

```
Int[sin[Pi/2 + (c_.) + (d_.)*(x_)], x_Symbol] :> Simp[Sin[c + d*x]/d, x] /;
 FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \cos(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{\sin(a+b\log(cx^n))}{bn}\end{aligned}$$

Mathematica [B] (verified)

Leaf count is larger than twice the leaf count of optimal. 37 vs. 2(18) = 36.

Time = 0.02 (sec) , antiderivative size = 37, normalized size of antiderivative = 2.06

$$\int \frac{\cos(a + b\log(cx^n))}{x} dx = \frac{\cos(b\log(cx^n))\sin(a)}{bn} + \frac{\cos(a)\sin(b\log(cx^n))}{bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]/x,x]
[Out] (Cos[b*Log[c*x^n]]*Sin[a])/(b*n) + (Cos[a]*Sin[b*Log[c*x^n]])/(b*n)
```

Maple [A] (verified)

Time = 0.52 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.06

method	result	size
derivativedivides	$\frac{\sin(a+b\ln(c\,x^n))}{bn}$	19
default	$\frac{\sin(a+b\ln(c\,x^n))}{bn}$	19
parallelrisch	$\frac{\sin\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{bn}$	22

```
[In] int(cos(a+b*ln(c*x^n))/x,x,method=_RETURNVERBOSE)
[Out] sin(a+b*ln(c*x^n))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.06

$$\int \frac{\cos(a + b\log(cx^n))}{x} dx = \frac{\sin(bn\log(x) + b\log(c) + a)}{bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))/x,x, algorithm="fricas")
[Out] sin(b*n*log(x) + b*log(c) + a)/(b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 34 vs. $2(14) = 28$.

Time = 0.23 (sec) , antiderivative size = 34, normalized size of antiderivative = 1.89

$$\int \frac{\cos(a+b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\cos(a) & \text{for } b=0 \wedge (b=0 \vee n=0) \\ \log(x)\cos(a+b\log(c)) & \text{for } n=0 \\ \frac{\sin(a+b\log(cx^n))}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n))/x,x)
[Out] Piecewise((log(x)*cos(a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos(a
+ b*log(c)), Eq(n, 0)), (sin(a + b*log(c*x**n))/(b*n), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00

$$\int \frac{\cos(a+b\log(cx^n))}{x}\,dx = \frac{\sin(b\log(cx^n)+a)}{bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))/x,x, algorithm="maxima")
[Out] sin(b*log(c*x^n) + a)/(b*n)
```

Giac [F]

$$\int \frac{\cos(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))/x,x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)/x, x)
```

Mupad [B] (verification not implemented)

Time = 27.47 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00

$$\int \frac{\cos(a + b\log(cx^n))}{x}\,dx = \frac{\sin(a + b\,\ln(c\,x^n))}{b\,n}$$

```
[In] int(cos(a + b*log(c*x^n))/x,x)
[Out] sin(a + b*log(c*x^n))/(b*n)
```

3.90 $\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 1306
Rubi [A] (verified) 1306
Mathematica [A] (verified) 1307
Maple [A] (verified) 1307
Fricas [A] (verification not implemented) 1307
Sympy [C] (verification not implemented) 1308
Maxima [B] (verification not implemented) 1308
Giac [F] 1309
Mupad [F(-1)] 1309

Optimal result

Integrand size = 15, antiderivative size = 56

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx = -\frac{\cos(a+b\log(cx^n))}{(1+b^2n^2)\,x}+\frac{bn\sin(a+b\log(cx^n))}{(1+b^2n^2)\,x}$$

```
[Out] -cos(a+b*ln(c*x^n))/(b^2*n^2+1)/x+b*n*sin(a+b*ln(c*x^n))/(b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4574}

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx = \frac{bn\sin(a+b\log(cx^n))}{x(b^2n^2+1)}-\frac{\cos(a+b\log(cx^n))}{x(b^2n^2+1)}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] -(Cos[a + b*Log[c*x^n]]/((1 + b^2*n^2)*x)) + (b*n*Sin[a + b*Log[c*x^n]])/((
1 + b^2*n^2)*x)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = -\frac{\cos(a+b\log(cx^n))}{(1+b^2n^2)\,x}+\frac{bn\sin(a+b\log(cx^n))}{(1+b^2n^2)\,x}$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.73

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx = \frac{-\cos(a+b\log(cx^n))+bn\sin(a+b\log(cx^n))}{x+b^2n^2x}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]/x^2,x]
[Out] (-Cos[a + b*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]])/(x + b^2*n^2*x)
```

Maple [A] (verified)

Time = 0.64 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.79

method	result	size
parallelrisch	$\frac{-\cos(a+b\ln(c\,x^n))+\sin(a+b\ln(c\,x^n))bn}{x(b^2n^2+1)}$	44

```
[In] int(cos(a+b*ln(c*x^n))/x^2,x,method=_RETURNVERBOSE)
[Out] 1/x/(b^2*n^2+1)*(-cos(a+b*ln(c*x^n))+sin(a+b*ln(c*x^n))*b*n)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.80

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx = \frac{bn\sin(bn\log(x)+b\log(c)+a)-\cos(bn\log(x)+b\log(c)+a)}{(b^2n^2+1)x}$$

```
[In] integrate(cos(a+b*log(c*x^n))/x^2,x, algorithm="fricas")
[Out] (b*n*sin(b*n*log(x) + b*log(c) + a) - cos(b*n*log(x) + b*log(c) + a))/((b^2
*n^2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 1.01 (sec) , antiderivative size = 192, normalized size of antiderivative = 3.43

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx$$
$$= \begin{cases} \frac{i\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{2x} + \frac{i\log(cx^n)\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{2nx} + \frac{\log(cx^n)\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{2nx} & \text{for } b=-\frac{i}{n} \\ -\frac{i\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{2x} - \frac{i\log(cx^n)\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{2nx} + \frac{\log(cx^n)\cos\left(a+\frac{i\log(cx^n)}{n}\right)}{2nx} & \text{for } b=\frac{i}{n} \\ \frac{bn\sin(a+b\log(cx^n))}{b^2n^2x+x} - \frac{\cos(a+b\log(cx^n))}{b^2n^2x+x} & \text{otherwise} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n))/x**2,x)
```

```
[Out] Piecewise((I*sin(a - I*log(c*x**n)/n)/(2*x) + I*log(c*x**n)*sin(a - I*log(c
*x**n)/n)/(2*n*x) + log(c*x**n)*cos(a - I*log(c*x**n)/n)/(2*n*x), Eq(b, -I/
n)), (-I*sin(a + I*log(c*x**n)/n)/(2*x) - I*log(c*x**n)*sin(a + I*log(c*x**
n)/n)/(2*n*x) + log(c*x**n)*cos(a + I*log(c*x**n)/n)/(2*n*x), Eq(b, I/n)),
(b*n*sin(a + b*log(c*x**n))/(b**2*n**2*x + x) - cos(a + b*log(c*x**n))/(b**
2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 208 vs. 2(56) = 112.

Time = 0.23 (sec) , antiderivative size = 208, normalized size of antiderivative = 3.71

$$\int \frac{\cos(a+b\log(cx^n))}{x^2}\,dx$$
$$= \frac{((b\cos(b\log(c))\sin(2b\log(c)) - b\cos(2b\log(c))\sin(b\log(c)) + b\sin(b\log(c)))n - \cos(2b\log(c))\cos(b}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))/x^2,x, algorithm="maxima")
```

```
[Out] 1/2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)) +
b*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - sin(2*b*log(c))*sin(b*
log(c)) - cos(b*log(c)))*cos(b*log(x^n) + a) + ((b*cos(2*b*log(c))*cos(b*lo
g(c)) + b*sin(2*b*log(c))*sin(b*log(c)) + b*cos(b*log(c)))*n + cos(b*log(c)
)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)) + sin(b*log(c)))*sin(b*lo
g(x^n) + a))/(((b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2 + cos(b*log(
c))^2 + sin(b*log(c))^2)*x)
```

Giac [F]

$$\int \frac{\cos(a + b\log(cx^n))}{x^2}\,dx = \int \frac{\cos(b\log(cx^n) + a)}{x^2}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))/x^2,x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\cos(a + b\log(cx^n))}{x^2}\,dx = \int \frac{\cos(a + b\ln(c\,x^n))}{x^2}\,dx$$

```
[In] int(cos(a + b*log(c*x^n))/x^2,x)
[Out] int(cos(a + b*log(c*x^n))/x^2, x)
```

3.91 $\int x^2 \cos^2(a+b\log(cx^n))\,dx$

Optimal result 1310
Rubi [A] (verified) 1310
Mathematica [A] (verified) 1311
Maple [A] (verified) 1312
Fricas [A] (verification not implemented) 1312
Sympy [F] 1312
Maxima [B] (verification not implemented) 1313
Giac [B] (verification not implemented) 1313
Mupad [B] (verification not implemented) 1314

Optimal result

Integrand size = 17, antiderivative size = 97

$$\int x^2\cos^2(a+b\log(cx^n))\,dx=\frac{2b^2n^2x^3}{3(9+4b^2n^2)}+\frac{3x^3\cos^2(a+b\log(cx^n))}{9+4b^2n^2}+\frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2}$$

```
[Out] 2/3*b^2*n^2*x^3/(4*b^2*n^2+9)+3*x^3*cos(a+b*ln(c*x^n))^2/(4*b^2*n^2+9)+2*b*
n*x^3*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(4*b^2*n^2+9)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 97, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 30}

$$\int x^2\cos^2(a+b\log(cx^n))\,dx=\frac{3x^3\cos^2(a+b\log(cx^n))}{4b^2n^2+9}+\frac{2bnx^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+9}+\frac{2b^2n^2x^3}{3(4b^2n^2+9)}$$

```
[In] Int[x^2*Cos[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*b^2*n^2*x^3)/(3*(9 + 4*b^2*n^2)) + (3*x^3*Cos[a + b*Log[c*x^n]]^2)/(9 +
4*b^2*n^2) + (2*b*n*x^3*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(9 + 4
*b^2*n^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{3x^3\cos^2(a+b\log(cx^n))}{9+4b^2n^2} \\ &\quad + \frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2} + \frac{(2b^2n^2)\int x^2\,dx}{9+4b^2n^2} \\ &= \frac{2b^2n^2x^3}{3(9+4b^2n^2)} + \frac{3x^3\cos^2(a+b\log(cx^n))}{9+4b^2n^2} + \frac{2bnx^3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{9+4b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 61, normalized size of antiderivative = 0.63

$$\int x^2\cos^2(a+b\log(cx^n))\,dx = \frac{x^3(9+4b^2n^2+9\cos(2(a+b\log(cx^n)))+6bn\sin(2(a+b\log(cx^n))))}{6(9+4b^2n^2)}$$

```
[In] Integrate[x^2*Cos[a + b*Log[c*x^n]]^2,x]
[Out] (x^3*(9 + 4*b^2*n^2 + 9*Cos[2*(a + b*Log[c*x^n])] + 6*b*n*Sin[2*(a + b*Log[
c*x^n])]))/(6*(9 + 4*b^2*n^2))
```

Maple [A] (verified)

Time = 2.32 (sec) , antiderivative size = 61, normalized size of antiderivative = 0.63

method	result	size
parallelrisch	$\frac{x^3(4b^2n^2+6bn\sin(2b\ln(c\,x^n)+2a)+9\cos(2b\ln(c\,x^n)+2a)+9)}{24b^2n^2+54}$	61

```
[In] int(x^2*cos(a+b*ln(c*x^n))^2,x,method=_RETURNVERBOSE)
[Out] x^3*(4*b^2*n^2+6*b*n*sin(2*b*ln(c*x^n)+2*a)+9*cos(2*b*ln(c*x^n)+2*a)+9)/(24
*b^2*n^2+54)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 76, normalized size of antiderivative = 0.78

$$\int x^2\cos^2(a+b\log(cx^n))\,dx$$
$$=\frac{2\,b^2n^2x^3+6\,bnx^3\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+9\,x^3\cos(bn\log(x)+b\log(}{3\,(4\,b^2n^2+9)}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] 1/3*(2*b^2*n^2*x^3 + 6*b*n*x^3*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x
) + b*log(c) + a) + 9*x^3*cos(b*n*log(x) + b*log(c) + a)^2)/(4*b^2*n^2 + 9)
```

Sympy [F]

$$\int x^2\cos^2(a+b\log(cx^n))\,dx$$
$$=\begin{cases}\int x^2\cos^2\left(a-\frac{3i\log(cx^n)}{2n}\right)dx & \\ \int x^2\cos^2\left(a+\frac{3i\log(cx^n)}{2n}\right)dx & \\ \frac{2b^2n^2x^3\sin^2(a+b\log(cx^n))}{12b^2n^2+27}+\frac{2b^2n^2x^3\cos^2(a+b\log(cx^n))}{12b^2n^2+27}+\frac{6bnx^3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{12b^2n^2+27}+\frac{9x^3\cos^2(a+b\log(cx^n))}{12b^2n^2+27} & \end{cases}$$

```
[In] integrate(x**2*cos(a+b*ln(c*x**n))**2,x)
[Out] Piecewise((Integral(x**2*cos(a - 3*I*log(c*x**n)/(2*n))**2, x), Eq(b, -3*I/
(2*n))), (Integral(x**2*cos(a + 3*I*log(c*x**n)/(2*n))**2, x), Eq(b, 3*I/(2
*n))), (2*b**2*n**2*x**3*sin(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27) + 2*
b**2*n**2*x**3*cos(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27) + 6*b*n*x**3*s
in(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(12*b**2*n**2 + 27) + 9*x**3*c
os(a + b*log(c*x**n))**2/(12*b**2*n**2 + 27), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 301 vs. $2(95) = 190$.

Time = 0.25 (sec) , antiderivative size = 301, normalized size of antiderivative = 3.10

$$\int x^2 \cos^2 (a + b \log (cx^n)) \, dx = \frac{3 (2 (b \cos (2 b \log (c)) \sin (4 b \log (c)) - b \cos (4 b \log (c)) \sin (2 b \log (c)) + b \sin (2 b \log (c)))n + 3 \cos (4 b \log}{}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] 1/12*(3*(2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*l
og(c)) + b*sin(2*b*log(c)))*n + 3*cos(4*b*log(c))*cos(2*b*log(c)) + 3*sin(4
*b*log(c))*sin(2*b*log(c)) + 3*cos(2*b*log(c)))*x^3*cos(2*b*log(x^n) + 2*a)
 + 3*(2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(
c)) + b*cos(2*b*log(c)))*n - 3*cos(2*b*log(c))*sin(4*b*log(c)) + 3*cos(4*b*
log(c))*sin(2*b*log(c)) - 3*sin(2*b*log(c)))*x^3*sin(2*b*log(x^n) + 2*a) +
2*(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 9*cos(2*b*log(c)
)^2 + 9*sin(2*b*log(c))^2)*x^3)/(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log
(c))^2)*n^2 + 9*cos(2*b*log(c))^2 + 9*sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 833 vs. $2(95) = 190$.

Time = 0.46 (sec) , antiderivative size = 833, normalized size of antiderivative = 8.59

$$\int x^2 \cos^2 (a + b \log (cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/6*x^3 - 1/4*(4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b*n*x^3*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 + 4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(a)^2 + 4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 3*x^3*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(a)^2 - 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b*n*x^3*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b
*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c))) - 4*b*n*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
```

```
b)*tan(a) - 4*b*n*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
a) + 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2 + 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 12*x^3*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 12*
x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a) + 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(a)^2 + 3*x^3*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)
^2 - 3*x^3*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 3*x^3*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b))/(4*b^2*n^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 4*b^2*n^2*tan(a)^2 + 4*b^2*n^2 + 9*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(a)^2 + 9*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 9*tan(a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 27.23 (sec) , antiderivative size = 66, normalized size of antiderivative = 0.68

$$\int x^2 \cos^2\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^3}{6}+\frac{x^3\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+12\mathrm{i}}+\frac{x^3\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{12+b\,n\,8\mathrm{i}}$$

```
[In] int(x^2*cos(a + b*log(c*x^n))^2,x)
```

```
[Out] x^3/6 + (x^3*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 12i) + (x^3*exp(a*2i)*(
c*x^n)^(b*2i))/(b*n*8i + 12)
```

3.92 $\int x\cos^2(a+b\log(cx^n))\,dx$

Optimal result 1315
Rubi [A] (verified) 1315
Mathematica [A] (verified) 1316
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Optimal result

Integrand size = 15, antiderivative size = 98

$$\int x\cos^2(a+b\log(cx^n))\,dx=\frac{b^2n^2x^2}{4(1+b^2n^2)}+\frac{x^2\cos^2(a+b\log(cx^n))}{2(1+b^2n^2)}+\frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)}$$

```
[Out] 1/4*b^2*n^2*x^2/(b^2*n^2+1)+1/2*x^2*cos(a+b*ln(c*x^n))^2/(b^2*n^2+1)+1/2*b*
n*x^2*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {4576, 30}

$$\int x\cos^2(a+b\log(cx^n))\,dx=\frac{x^2\cos^2(a+b\log(cx^n))}{2(b^2n^2+1)}+\frac{bnx^2\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2(b^2n^2+1)}+\frac{b^2n^2x^2}{4(b^2n^2+1)}$$

```
[In] Int[x*Cos[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (b^2*n^2*x^2)/(4*(1 + b^2*n^2)) + (x^2*Cos[a + b*Log[c*x^n]]^2)/(2*(1 + b^2
*n^2)) + (b*n*x^2*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(2*(1 + b^2*
n^2))
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{x^2\cos^2(a+b\log(cx^n))}{2(1+b^2n^2)} + \frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)} + \frac{(b^2n^2)\int x\,dx}{2(1+b^2n^2)}\\ &= \frac{b^2n^2x^2}{4(1+b^2n^2)} + \frac{x^2\cos^2(a+b\log(cx^n))}{2(1+b^2n^2)} + \frac{bnx^2\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2(1+b^2n^2)}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.55

$$\int x\cos^2(a+b\log(cx^n))\,dx = \frac{x^2(1+b^2n^2+\cos(2(a+b\log(cx^n)))+bn\sin(2(a+b\log(cx^n))))}{4+4b^2n^2}$$

```
[In] Integrate[x*Cos[a + b*Log[c*x^n]]^2,x]
[Out] (x^2*(1 + b^2*n^2 + Cos[2*(a + b*Log[c*x^n])] + b*n*Sin[2*(a + b*Log[c*x^n]
)]))/(4 + 4*b^2*n^2)
```

Maple [A] (verified)

Time = 1.41 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.58

method	result	size
parallelrisch	$\frac{x^2(b^2n^2+bn\sin(2b\ln(c\,x^n)+2a)+\cos(2b\ln(c\,x^n)+2a)+1)}{4b^2n^2+4}$	57

[In] int(x*cos(a+b*ln(c*x^n))^2,x,method=_RETURNVERBOSE)

[Out] x^2*(b^2*n^2+b*n*sin(2*b*ln(c*x^n)+2*a)+cos(2*b*ln(c*x^n)+2*a)+1)/(4*b^2*n^2+4)

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 74, normalized size of antiderivative = 0.76

$$\int x\cos^2(a+b\log(cx^n))\,dx$$
$$=\frac{b^2n^2x^2+2\,bnx^2\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+2\,x^2\cos(bn\log(x)+b\log(}{4\,(b^2n^2+1)}$$

[In] integrate(x*cos(a+b*log(c*x^n))^2,x, algorithm="fricas")

[Out] 1/4*(b^2*n^2*x^2 + 2*b*n*x^2*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) + a) + 2*x^2*cos(b*n*log(x) + b*log(c) + a)^2)/(b^2*n^2 + 1)

Sympy [F]

$$\int x\cos^2(a+b\log(cx^n))\,dx$$
$$=\begin{cases}\int x\cos^2\left(a-\frac{i\log(cx^n)}{n}\right)dx & \text{f}\\ \int x\cos^2\left(a+\frac{i\log(cx^n)}{n}\right)dx & \text{f}\\ \frac{b^2n^2x^2\sin^2(a+b\log(cx^n))}{4b^2n^2+4}+\frac{b^2n^2x^2\cos^2(a+b\log(cx^n))}{4b^2n^2+4}+\frac{2bnx^2\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+4}+\frac{2x^2\cos^2(a+b\log(cx^n))}{4b^2n^2+4} & \text{o}\end{cases}$$

[In] integrate(x*cos(a+b*ln(c*x**n))**2,x)

[Out] Piecewise((Integral(x*cos(a - I*log(c*x**n)/n)**2, x), Eq(b, -I/n)), (Integral(x*cos(a + I*log(c*x**n)/n)**2, x), Eq(b, I/n)), (b**2*n**2*x**2*sin(a + b*log(c*x**n))**2/(4*b**2*n**2 + 4) + b**2*n**2*x**2*cos(a + b*log(c*x**n))**2/(4*b**2*n**2 + 4) + 2*b*n*x**2*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*n**2 + 4) + 2*x**2*cos(a + b*log(c*x**n))**2/(4*b**2*n**2 + 4), True))

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 282 vs. $2(92) = 184$.

Time = 0.23 (sec) , antiderivative size = 282, normalized size of antiderivative = 2.88

$$\int x\cos^2\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$= \frac{\left(\left(b\cos\left(2\,b\log\left(c\right)\right)\sin\left(4\,b\log\left(c\right)\right)-b\cos\left(4\,b\log\left(c\right)\right)\sin\left(2\,b\log\left(c\right)\right)+b\sin\left(2\,b\log\left(c\right)\right)\right)n+\cos\left(4\,b\log\left(c\right)\right)\cos\right.}{}$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] 1/8*(((b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)
) + b*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c)
)*sin(2*b*log(c)) + cos(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) + ((b*cos(
4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)) + b*cos(2*b
*log(c)))*n - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*log
(c)) - sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*a) + 2*((b^2*cos(2*b*log(c
))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*
x^2)/((b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))
^2 + sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 820 vs. $2(92) = 184$.

Time = 0.45 (sec) , antiderivative size = 820, normalized size of antiderivative = 8.37

$$\int x\cos^2\left(a+b\log\left(cx^n\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/4*x^2 - 1/8*(2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 2*b*n*x^2*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 + 2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(a)^2 + 2*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - x^2*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(a)^2 - x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 2*b*n*x^2*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 2*b*n*x
^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c))) - 2*b*n*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
```

```
an(a) - 2*b*n*x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) +
 x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2 + x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 4*x^2*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(a) + x^2*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2
+ x^2*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - x^2*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - x^2*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b))/(b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 + b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + b^2*n^2*tan(a)^2 +
 b^2*n^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2 + tan(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.17 (sec) , antiderivative size = 66, normalized size of antiderivative = 0.67

$$\int x\cos^2\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^2}{4}+\frac{x^2\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+8\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{8+b\,n\,8\mathrm{i}}$$

```
[In] int(x*cos(a + b*log(c*x^n))^2,x)
```

```
[Out] x^2/4 + (x^2*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 8i) + (x^2*exp(a*2i)*(c
*x^n)^(b*2i))/(b*n*8i + 8)
```

3.93 $\int \cos^2(a+b\log(cx^n))\,dx$

Optimal result 1320
Rubi [A] (verified) 1320
Mathematica [A] (verified) 1321
Maple [A] (verified) 1321
Fricas [A] (verification not implemented) 1322
Sympy [F] 1322
Maxima [B] (verification not implemented) 1323
Giac [B] (verification not implemented) 1323
Mupad [B] (verification not implemented) 1324

Optimal result

Integrand size = 13, antiderivative size = 88

$$\int \cos^2(a+b\log(cx^n))\,dx=\frac{2b^2n^2x}{1+4b^2n^2}+\frac{x\cos^2(a+b\log(cx^n))}{1+4b^2n^2}+\frac{2bnx\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+4b^2n^2}$$

```
[Out] 2*b^2*n^2*x/(4*b^2*n^2+1)+x*cos(a+b*ln(c*x^n))^2/(4*b^2*n^2+1)+2*b*n*x*cos(
a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(4*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.154, Rules used = {4566, 8}

$$\int \cos^2(a+b\log(cx^n))\,dx=\frac{x\cos^2(a+b\log(cx^n))}{4b^2n^2+1}+\frac{2bnx\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+1}+\frac{2b^2n^2x}{4b^2n^2+1}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*b^2*n^2*x)/(1 + 4*b^2*n^2) + (x*Cos[a + b*Log[c*x^n]]^2)/(1 + 4*b^2*n^2)
 + (2*b*n*x*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(1 + 4*b^2*n^2)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 4566

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Cos[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Cos[d*(a + b*Log[c*x^n])]^(p -
2), x], x] + Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]^(p - 1)*(Sin[d*(a + b
*Log[c*x^n])]/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\text{integral} = \frac{x\cos^2(a+b\log(cx^n))}{1+4b^2n^2} + \frac{2bnx\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+4b^2n^2} + \frac{(2b^2n^2)\int 1\,dx}{1+4b^2n^2}$$
$$= \frac{2b^2n^2x}{1+4b^2n^2} + \frac{x\cos^2(a+b\log(cx^n))}{1+4b^2n^2} + \frac{2bnx\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+4b^2n^2}$$

Mathematica [A] (verified)

Time = 0.07 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.61

$$\int \cos^2(a+b\log(cx^n))\,dx = \frac{x(1+4b^2n^2+\cos(2(a+b\log(cx^n)))+2bn\sin(2(a+b\log(cx^n))))}{2+8b^2n^2}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^2,x]
[Out] (x*(1 + 4*b^2*n^2 + Cos[2*(a + b*Log[c*x^n])] + 2*b*n*Sin[2*(a + b*Log[c*x^
n])]))/(2 + 8*b^2*n^2)
```

Maple [A] (verified)

Time = 1.72 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.65

method	result	size
parallelrisch	$\frac{x\left(4b^2n^2+2bn\sin(2b\ln(c\,x^n)+2a)+\cos(2b\ln(c\,x^n)+2a)+1\right)}{8b^2n^2+2}$	57
default	$\frac{x}{2}+\frac{e^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(2b\ln(c\,x^n)+2a)}{2n^2\left(\frac{1}{n^2}+4b^2\right)}+\frac{b\,e^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin(2b\ln(c\,x^n)+2a)}{n\left(\frac{1}{n^2}+4b^2\right)}$	103

```
[In] int(cos(a+b*ln(c*x^n))^2,x,method=_RETURNVERBOSE)
```

[Out] x*(4*b^2*n^2+2*b*n*sin(2*b*ln(c*x^n)+2*a)+cos(2*b*ln(c*x^n)+2*a)+1)/(8*b^2*n^2+2)

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 68, normalized size of antiderivative = 0.77

$$\int \cos^2(a+b\log(cx^n))\,dx$$
$$=\frac{2b^2n^2x+2bnx\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+x\cos(bn\log(x)+b\log(c)+}{4b^2n^2+1}$$

[In] integrate(cos(a+b*log(c*x^n))^2,x, algorithm="fricas")

[Out] (2*b^2*n^2*x + 2*b*n*x*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) + a) + x*cos(b*n*log(x) + b*log(c) + a)^2)/(4*b^2*n^2 + 1)

Sympy [F]

$$\int \cos^2(a+b\log(cx^n))\,dx$$
$$=\begin{cases}\int \cos^2\left(a-\frac{i\log(cx^n)}{2n}\right)dx & \text{for } b \\ \int \cos^2\left(a+\frac{i\log(cx^n)}{2n}\right)dx & \text{for } b \\ \frac{2b^2n^2x\sin^2(a+b\log(cx^n))}{4b^2n^2+1}+\frac{2b^2n^2x\cos^2(a+b\log(cx^n))}{4b^2n^2+1}+\frac{2bnx\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+1}+\frac{x\cos^2(a+b\log(cx^n))}{4b^2n^2+1} & \text{othe}\end{cases}$$

[In] integrate(cos(a+b*ln(c*x**n))**2,x)

[Out] Piecewise((Integral(cos(a - I*log(c*x**n)/(2*n))**2, x), Eq(b, -I/(2*n))), (Integral(cos(a + I*log(c*x**n)/(2*n))**2, x), Eq(b, I/(2*n))), (2*b**2*n**2*x*sin(a + b*log(c*x**n))**2/(4*b**2*n**2 + 1) + 2*b**2*n**2*x*cos(a + b*log(c*x**n))**2/(4*b**2*n**2 + 1) + 2*b*n*x*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*n**2 + 1) + x*cos(a + b*log(c*x**n))**2/(4*b**2*n**2 + 1), True))

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 280 vs. $2(88) = 176$.

Time = 0.24 (sec) , antiderivative size = 280, normalized size of antiderivative = 3.18

$$\int \cos^2(a + b\log(cx^n))\,dx = \frac{(2(b\cos(2b\log(c))\sin(4b\log(c)) - b\cos(4b\log(c))\sin(2b\log(c)) + b\sin(2b\log(c)))n + \cos(4b\log(c}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] 1/4*((2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(
c)) + b*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(
c))*sin(2*b*log(c)) + cos(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) + (2*(b*co
s(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)) + b*cos(2
*b*log(c)))*n - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*l
og(c)) - sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + 2*(4*(b^2*cos(2*b*log
(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2 + sin(2*b*log(c))^2
)*x)/(4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c
))^2 + sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 786 vs. $2(88) = 176$.

Time = 0.42 (sec) , antiderivative size = 786, normalized size of antiderivative = 8.93

$$\int \cos^2(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] 1/2*x - 1/4*(4*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b
*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a)^2 + 4*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - x*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a
)^2 - x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(a)^2 - 4*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b*n*x*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*
b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 4*b*n*x*e^(-
```

```
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(a) + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + x*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + x*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(a)^2 - x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b) - x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b))/(4*b^2*n^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2 + 4*b^2*n^2*tan(a)^2 + 4*b^2*n^2 + tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan
(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.67 (sec) , antiderivative size = 56, normalized size of antiderivative = 0.64

$$\int \cos^2(a+b\log(cx^n))\,dx = \frac{x\left(2\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2+4\,b^2\,n^2+2\,b\,n\,\sin\left(2\,a+2\,b\,\ln\left(c\,x^n\right)\right)\right)}{8\,b^2\,n^2+2}$$

```
[In] int(cos(a + b*log(c*x^n))^2,x)
```

```
[Out] (x*(2*cos(a + b*log(c*x^n))^2 + 4*b^2*n^2 + 2*b*n*sin(2*a + 2*b*log(c*x^n))
))/(8*b^2*n^2 + 2)
```

3.94 $\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx$

Optimal result 1325
Rubi [A] (verified) 1325
Mathematica [A] (verified) 1326
Maple [A] (verified) 1326
Fricas [A] (verification not implemented) 1327
Sympy [A] (verification not implemented) 1327
Maxima [A] (verification not implemented) 1327
Giac [F] 1328
Mupad [B] (verification not implemented) 1328

Optimal result

Integrand size = 17, antiderivative size = 39

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx=\frac{\log(x)}{2}+\frac{\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2bn}$$

```
[Out] 1/2*ln(x)+1/2*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {2715, 8}

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx=\frac{\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{2bn}+\frac{\log(x)}{2}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^2/x,x]
[Out] Log[x]/2 + (Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(2*b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \cos^2(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\
&= \frac{\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2bn} + \frac{\text{Subst}\left(\int 1\,dx, x, \log(cx^n)\right)}{2n}\\
&= \frac{\log(x)}{2} + \frac{\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{2bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.92

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \frac{2(a+b\log(cx^n)) + \sin(2(a+b\log(cx^n)))}{4bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^2/x,x]
[Out] (2*(a + b*Log[c*x^n]) + Sin[2*(a + b*Log[c*x^n])])/(4*b*n)
```

Maple [A] (verified)

Time = 1.41 (sec) , antiderivative size = 30, normalized size of antiderivative = 0.77

method	result	size
parallelrisch	$\frac{2\ln(x)bn+\sin(2b\ln(c\,x^n)+2a)}{4bn}$	30
derivativedivides	$\frac{\frac{\cos(a+b\ln(c\,x^n))\sin(a+b\ln(c\,x^n))}{2}+\frac{b\ln(c\,x^n)}{2}+\frac{a}{2}}{nb}$	45
default	$\frac{\frac{\cos(a+b\ln(c\,x^n))\sin(a+b\ln(c\,x^n))}{2}+\frac{b\ln(c\,x^n)}{2}+\frac{a}{2}}{nb}$	45

```
[In] int(cos(a+b*ln(c*x^n))^2/x,x,method=_RETURNVERBOSE)
[Out] 1/4*(2*ln(x)*b*n+sin(2*b*ln(c*x^n)+2*a))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.00

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \frac{bn\log(x)+\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)}{2\,bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))^2/x,x, algorithm="fricas")
```

```
[Out] 1/2*(b*n*log(x) + cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c)
+ a))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 1.17 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.31

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \frac{\begin{cases} \log(x)\cos(2a) & \text{for}\ b=0 \wedge (b=0 \vee n=0) \\ \log(x)\cos(2a+2b\log(c)) & \text{for}\ n=0 \\ \frac{\sin(2a+2b\log(cx^n))}{2bn} & \text{otherwise} \end{cases}}{2} + \frac{\log(x)}{2}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**2/x,x)
```

```
[Out] Piecewise((log(x)*cos(2*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos(
2*a + 2*b*log(c)), Eq(n, 0)), (sin(2*a + 2*b*log(c*x**n))/(2*b*n), True))/2
 + log(x)/2
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 53, normalized size of antiderivative = 1.36

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \frac{2\,bn\log(x)+\cos(2\,b\log(x^n)+2\,a)\sin(2\,b\log(c))+\cos(2\,b\log(c))\sin(2\,b\log(x^n)+2\,a)}{4\,bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))^2/x,x, algorithm="maxima")
```

```
[Out] 1/4*(2*b*n*log(x) + cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c
))*sin(2*b*log(x^n) + 2*a))/(b*n)
```

Giac [F]

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^2}{x}\,dx$$

[In] integrate(cos(a+b*log(c*x^n))^2/x,x, algorithm="giac")

[Out] integrate(cos(b*log(c*x^n) + a)^2/x, x)

Mupad [B] (verification not implemented)

Time = 26.95 (sec) , antiderivative size = 32, normalized size of antiderivative = 0.82

$$\int \frac{\cos^2(a+b\log(cx^n))}{x}\,dx = \frac{\ln(x^n)}{2\,n} + \frac{\sin(2\,a+2\,b\,\ln(c\,x^n))}{4\,b\,n}$$

[In] int(cos(a + b*log(c*x^n))^2/x,x)

[Out] log(x^n)/(2*n) + sin(2*a + 2*b*log(c*x^n))/(4*b*n)

3.95 $\int \frac{\cos^2(a+b\log(cx^n))}{x^2} dx$

Optimal result 1329
Rubi [A] (verified) 1329
Mathematica [A] (verified) 1330
Maple [A] (verified) 1331
Fricas [A] (verification not implemented) 1331
Sympy [C] (verification not implemented) 1331
Maxima [B] (verification not implemented) 1332
Giac [F] 1332
Mupad [F(-1)] 1333

Optimal result

Integrand size = 17, antiderivative size = 95

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{2b^2n^2}{(1+4b^2n^2)\,x}-\frac{\cos^2(a+b\log(cx^n))}{(1+4b^2n^2)\,x}+\frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)\,x}$$

```
[Out] -2*b^2*n^2/(4*b^2*n^2+1)/x-cos(a+b*ln(c*x^n))^2/(4*b^2*n^2+1)/x+2*b*n*cos(a
+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(4*b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 95, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 30}

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{\cos^2(a+b\log(cx^n))}{x(4b^2n^2+1)}+\frac{2bn\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{x(4b^2n^2+1)}-\frac{2b^2n^2}{x(4b^2n^2+1)}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^2/x^2,x]
```

```
[Out] (-2*b^2*n^2)/((1 + 4*b^2*n^2)*x) - Cos[a + b*Log[c*x^n]]^2/((1 + 4*b^2*n^2)
*x) + (2*b*n*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/((1 + 4*b^2*n^2)*
x)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\frac{\cos^2(a+b\log(cx^n))}{(1+4b^2n^2)x} + \frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)x} + \frac{(2b^2n^2)\int\frac{1}{x^2}\,dx}{1+4b^2n^2}\\ &= -\frac{2b^2n^2}{(1+4b^2n^2)x} - \frac{\cos^2(a+b\log(cx^n))}{(1+4b^2n^2)x} + \frac{2bn\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+4b^2n^2)x}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.60

$$\int\frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{1+4b^2n^2+\cos(2(a+b\log(cx^n)))-2bn\sin(2(a+b\log(cx^n)))}{2(x+4b^2n^2x)}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^2/x^2,x]
[Out] -1/2*(1 + 4*b^2*n^2 + Cos[2*(a + b*Log[c*x^n])] - 2*b*n*Sin[2*(a + b*Log[c*
x^n])])/(x + 4*b^2*n^2*x)
```

Maple [A] (verified)

Time = 2.26 (sec) , antiderivative size = 61, normalized size of antiderivative = 0.64

method	result	size
parallelrisch	$\frac{-4b^2n^2+2bn\sin(2b\ln(c\,x^n)+2a)-\cos(2b\ln(c\,x^n)+2a)-1}{8b^2n^2x+2x}$	61

[In] int(cos(a+b*ln(c*x^n))^2/x^2,x,method=_RETURNVERBOSE)

[Out] (-4*b^2*n^2+2*b*n*sin(2*b*ln(c*x^n)+2*a)-cos(2*b*ln(c*x^n)+2*a)-1)/(8*b^2*n^2*x+2*x)

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 68, normalized size of antiderivative = 0.72

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{2\,b^2n^2-2\,bn\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+\cos(bn\log(x)+b\log(c)+}{(4\,b^2n^2+1)x}$$

[In] integrate(cos(a+b*log(c*x^n))^2/x^2,x, algorithm="fricas")

[Out] -(2*b^2*n^2 - 2*b*n*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(c) + a) + cos(b*n*log(x) + b*log(c) + a)^2)/((4*b^2*n^2 + 1)*x)

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 4.02 (sec) , antiderivative size = 301, normalized size of antiderivative = 3.17

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = \begin{cases} -\frac{\cos\left(2a-\frac{i\log(cx^n)}{n}\right)}{4x}-\frac{1}{2x}+\frac{i\log(cx^n)\sin\left(2a-\frac{i\log(cx^n)}{n}\right)}{4nx}+\frac{\log(cx^n)\cos\left(2a-\frac{i\log(cx^n)}{n}\right)}{4nx} & \text{for } b \\ -\frac{i\sin\left(2a+\frac{i\log(cx^n)}{n}\right)}{4x}-\frac{1}{2x}-\frac{i\log(cx^n)\sin\left(2a+\frac{i\log(cx^n)}{n}\right)}{4nx}+\frac{\log(cx^n)\cos\left(2a+\frac{i\log(cx^n)}{n}\right)}{4nx} & \text{for } b \\ -\frac{2b^2n^2\sin^2(a+b\log(cx^n))}{4b^2n^2x+x}-\frac{2b^2n^2\cos^2(a+b\log(cx^n))}{4b^2n^2x+x}+\frac{2bn\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2x+x}-\frac{\cos^2(a+b\log(cx^n))}{4b^2n^2x+x} & \text{other} \end{cases}$$

[In] integrate(cos(a+b*ln(c*x**n))**2/x**2,x)

[Out] Piecewise((-cos(2*a - I*log(c*x**n)/n)/(4*x) - 1/(2*x) + I*log(c*x**n)*sin(2*a - I*log(c*x**n)/n)/(4*n*x) + log(c*x**n)*cos(2*a - I*log(c*x**n)/n)/(4*

```
n*x), Eq(b, -I/(2*n))), (-I*sin(2*a + I*log(c*x**n)/n)/(4*x) - 1/(2*x) - I*
log(c*x**n)*sin(2*a + I*log(c*x**n)/n)/(4*n*x) + log(c*x**n)*cos(2*a + I*lo
g(c*x**n)/n)/(4*n*x), Eq(b, I/(2*n))), (-2*b**2*n**2*sin(a + b*log(c*x**n))
**2/(4*b**2*n**2*x + x) - 2*b**2*n**2*cos(a + b*log(c*x**n))**2/(4*b**2*n**
2*x + x) + 2*b*n*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*n**2
*x + x) - cos(a + b*log(c*x**n))**2/(4*b**2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 285 vs. $2(95) = 190$.

Time = 0.24 (sec) , antiderivative size = 285, normalized size of antiderivative = 3.00

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{8\left(b^2\cos(2b\log(c))^2+b^2\sin(2b\log(c))^2\right)n^2+2\cos(2b\log(c))^2-(2(b\cos(2b\log(c))\sin(4b\log(c))-$$

```
[In] integrate(cos(a+b*log(c*x^n))^2/x^2,x, algorithm="maxima")
```

```
[Out] -1/4*(8*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 2*cos(2*b*log
(c))^2 - (2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*
log(c)) + b*sin(2*b*log(c)))*n - cos(4*b*log(c))*cos(2*b*log(c)) - sin(4*b*
log(c))*sin(2*b*log(c)) - cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*sin(
2*b*log(c))^2 - (2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*s
in(2*b*log(c)) + b*cos(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - c
os(4*b*log(c))*sin(2*b*log(c)) + sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))/
((4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + cos(2*b*log(c))^2
 + sin(2*b*log(c))^2)*x)
```

Giac [F]

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\cos(b\log(cx^n)+a)^2}{x^2}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^2/x^2,x, algorithm="giac")
```

```
[Out] integrate(cos(b*log(c*x^n) + a)^2/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\cos^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}{x^2}\,dx$$

```
[In] int(cos(a + b*log(c*x^n))^2/x^2,x)
[Out] int(cos(a + b*log(c*x^n))^2/x^2, x)
```

3.96 $\int x^2 \cos^3(a+b\log(cx^n))\,dx$

Optimal result 1334
Rubi [A] (verified) 1334
Mathematica [A] (verified) 1335
Maple [A] (verified) 1336
Fricas [A] (verification not implemented) 1336
Sympy [F] 1337
Maxima [B] (verification not implemented) 1337
Giac [B] (verification not implemented) 1338
Mupad [B] (verification not implemented) 1352

Optimal result

Integrand size = 17, antiderivative size = 160

$$\int x^2\cos^3(a+b\log(cx^n))\,dx=\frac{2b^2n^2x^3\cos(a+b\log(cx^n))}{9+10b^2n^2+b^4n^4}+\frac{x^3\cos^3(a+b\log(cx^n))}{3(1+b^2n^2)}+\frac{2b^3n^3x^3\sin(a+b\log(cx^n))}{3(9+10b^2n^2+b^4n^4)}+\frac{bnx^3\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3(1+b^2n^2)}$$

```
[Out] 2*b^2*n^2*x^3*cos(a+b*ln(c*x^n))/(b^4*n^4+10*b^2*n^2+9)+1/3*x^3*cos(a+b*ln(
c*x^n))^3/(b^2*n^2+1)+2/3*b^3*n^3*x^3*sin(a+b*ln(c*x^n))/(b^4*n^4+10*b^2*n^
2+9)+1/3*b*n*x^3*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n))/(b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 160, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 4574}

$$\int x^2\cos^3(a+b\log(cx^n))\,dx=\frac{x^3\cos^3(a+b\log(cx^n))}{3(b^2n^2+1)}+\frac{bnx^3\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{3(b^2n^2+1)}+\frac{2b^2n^2x^3\cos(a+b\log(cx^n))}{b^4n^4+10b^2n^2+9}+\frac{2b^3n^3x^3\sin(a+b\log(cx^n))}{3(b^4n^4+10b^2n^2+9)}$$

```
[In] Int[x^2*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (2*b^2*n^2*x^3*Cos[a + b*Log[c*x^n]])/(9 + 10*b^2*n^2 + b^4*n^4) + (x^3*Cos
[a + b*Log[c*x^n]]^3)/(3*(1 + b^2*n^2)) + (2*b^3*n^3*x^3*Sin[a + b*Log[c*x^
n]])/(3*(9 + 10*b^2*n^2 + b^4*n^4)) + (b*n*x^3*Cos[a + b*Log[c*x^n]]^2*Sin[
a + b*Log[c*x^n]])/(3*(1 + b^2*n^2))
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{x^3\cos^3(a+b\log(cx^n))}{3(1+b^2n^2)}+\frac{bnx^3\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3(1+b^2n^2)}\\&\quad+\frac{(2b^2n^2)\int x^2\cos(a+b\log(cx^n))\,dx}{3(1+b^2n^2)}\\&=\frac{2b^2n^2x^3\cos(a+b\log(cx^n))}{9+10b^2n^2+b^4n^4}+\frac{x^3\cos^3(a+b\log(cx^n))}{3(1+b^2n^2)}\\&\quad+\frac{2b^3n^3x^3\sin(a+b\log(cx^n))}{3(9+10b^2n^2+b^4n^4)}+\frac{bnx^3\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3(1+b^2n^2)}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.38 (sec) , antiderivative size = 120, normalized size of antiderivative = 0.75

$$\int x^2\cos^3(a+b\log(cx^n))\,dx$$
$$=\frac{x^3(27(1+b^2n^2)\cos(a+b\log(cx^n))+(9+b^2n^2)\cos(3(a+b\log(cx^n)))+2bn(9+5b^2n^2+(9+b^2n^2)\cos}{12(9+10b^2n^2+b^4n^4)}$$

```
[In] Integrate[x^2*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^3*(27*(1 + b^2*n^2)*Cos[a + b*Log[c*x^n]] + (9 + b^2*n^2)*Cos[3*(a + b*L
og[c*x^n])] + 2*b*n*(9 + 5*b^2*n^2 + (9 + b^2*n^2)*Cos[2*(a + b*Log[c*x^n])
])*Sin[a + b*Log[c*x^n]]))/(12*(9 + 10*b^2*n^2 + b^4*n^4))
```

Maple [A] (verified)

Time = 7.31 (sec) , antiderivative size = 117, normalized size of antiderivative = 0.73

method	result
parallelrisch	$\frac{9x^3\left(\left(\frac{b^2n^2}{9}+1\right)\cos(3b\ln(cx^n)+3a)+\left(\frac{1}{9}b^3n^3+bn\right)\sin(3b\ln(cx^n)+3a)+\left(b^2n^2+1\right)\left(\sin(a+b\ln(cx^n))bn+3\cos(a+b\ln(cx^n))\right)\right)}{12b^4n^4+120b^2n^2+108}$

```
[In] int(x^2*cos(a+b*ln(c*x^n))^3,x,method=_RETURNVERBOSE)
```

```
[Out] 9*x^3*((1/9*b^2*n^2+1)*cos(3*b*ln(c*x^n)+3*a)+(1/9*b^3*n^3+b*n)*sin(3*b*ln(
c*x^n)+3*a)+(b^2*n^2+1)*(sin(a+b*ln(c*x^n))*b*n+3*cos(a+b*ln(c*x^n))))/(12*
b^4*n^4+120*b^2*n^2+108)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 127, normalized size of antiderivative = 0.79

$$\int x^2\cos^3\left(a+b\log\left(cx^n\right)\right)\,dx = \frac{6\,b^2n^2x^3\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+(b^2n^2+9)x^3\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^3+\left(2\,b^3n^3x^3+(b^3n^3+\right.}{3\left(b^4n^4+10\,b^2n^2+9\right)}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] 1/3*(6*b^2*n^2*x^3*cos(b*n*log(x) + b*log(c) + a) + (b^2*n^2 + 9)*x^3*cos(b
*n*log(x) + b*log(c) + a)^3 + (2*b^3*n^3*x^3 + (b^3*n^3 + 9*b*n)*x^3*cos(b*
n*log(x) + b*log(c) + a)^2)*sin(b*n*log(x) + b*log(c) + a))/(b^4*n^4 + 10*b
^2*n^2 + 9)
```

Sympy [F]

$$\int x^2\cos^3\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$=\begin{cases}\int x^2\cos^3\left(a-\frac{3i\log(cx^n)}{n}\right)dx\\ \int x^2\cos^3\left(a-\frac{i\log(cx^n)}{n}\right)dx\\ \int x^2\cos^3\left(a+\frac{i\log(cx^n)}{n}\right)dx\\ \int x^2\cos^3\left(a+\frac{3i\log(cx^n)}{n}\right)dx\\ \frac{2b^3n^3x^3\sin^3(a+b\log(cx^n))}{3b^4n^4+30b^2n^2+27}+\frac{3b^3n^3x^3\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{3b^4n^4+30b^2n^2+27}+\frac{6b^2n^2x^3\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{3b^4n^4+30b^2n^2+27}+\frac{7b^2\cdots}{\cdots}\end{cases}$$

```
[In] integrate(x**2*cos(a+b*ln(c*x**n))**3,x)
```

```
[Out] Piecewise((Integral(x**2*cos(a - 3*I*log(c*x**n)/n)**3, x), Eq(b, -3*I/n)),
 (Integral(x**2*cos(a - I*log(c*x**n)/n)**3, x), Eq(b, -I/n)), (Integral(x*
*2*cos(a + I*log(c*x**n)/n)**3, x), Eq(b, I/n)), (Integral(x**2*cos(a + 3*I
*log(c*x**n)/n)**3, x), Eq(b, 3*I/n)), (2*b**3*n**3*x**3*sin(a + b*log(c*x*
*n))**3/(3*b**4*n**4 + 30*b**2*n**2 + 27) + 3*b**3*n**3*x**3*sin(a + b*log(
c*x**n))*cos(a + b*log(c*x**n))**2/(3*b**4*n**4 + 30*b**2*n**2 + 27) + 6*b*
*2*n**2*x**3*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/(3*b**4*n**4
+ 30*b**2*n**2 + 27) + 7*b**2*n**2*x**3*cos(a + b*log(c*x**n))**3/(3*b**4*n
**4 + 30*b**2*n**2 + 27) + 9*b*n*x**3*sin(a + b*log(c*x**n))*cos(a + b*log(
c*x**n))**2/(3*b**4*n**4 + 30*b**2*n**2 + 27) + 9*x**3*cos(a + b*log(c*x**n
))**3/(3*b**4*n**4 + 30*b**2*n**2 + 27), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1007 vs. 2(154) = 308.

Time = 0.26 (sec) , antiderivative size = 1007, normalized size of antiderivative = 6.29

$$\int x^2\cos^3\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Too large to display}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/24*(((b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*b*l
og(c)) + b^3*sin(3*b*log(c)))*n^3 + (b^2*cos(6*b*log(c))*cos(3*b*log(c)) +
b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 9*(b*cos(3
*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*
log(c)))*n + 9*cos(6*b*log(c))*cos(3*b*log(c)) + 9*sin(6*b*log(c))*sin(3*b*
```

```
log(c)) + 9*cos(3*b*log(c)))*x^3*cos(3*b*log(x^n) + 3*a) + 9*((b^3*cos(3*b*
log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b
*log(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 + 3*(b^
2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b
^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log(c)))*n
^2 + (b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c))
 + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n
 + 3*cos(4*b*log(c))*cos(3*b*log(c)) + 3*cos(3*b*log(c))*cos(2*b*log(c)) +
3*sin(4*b*log(c))*sin(3*b*log(c)) + 3*sin(3*b*log(c))*sin(2*b*log(c)))*x^3*
cos(b*log(x^n) + a) + ((b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*l
og(c))*sin(3*b*log(c)) + b^3*cos(3*b*log(c)))*n^3 - (b^2*cos(3*b*log(c))*si
n(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*
n^2 + 9*(b*cos(6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(
c)) + b*cos(3*b*log(c)))*n - 9*cos(3*b*log(c))*sin(6*b*log(c)) + 9*cos(6*b*
log(c))*sin(3*b*log(c)) - 9*sin(3*b*log(c)))*x^3*sin(3*b*log(x^n) + 3*a) +
9*((b^3*cos(4*b*log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c
)) + b^3*sin(4*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(
c)))*n^3 - 3*(b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin
(3*b*log(c)) + b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*si
n(2*b*log(c)))*n^2 + (b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))
*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*si
n(2*b*log(c)))*n - 3*cos(3*b*log(c))*sin(4*b*log(c)) + 3*cos(4*b*log(c))*si
n(3*b*log(c)) - 3*cos(2*b*log(c))*sin(3*b*log(c)) + 3*cos(3*b*log(c))*sin(2
*b*log(c)))*x^3*sin(b*log(x^n) + a))/((b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*
log(c))^2)*n^4 + 10*(b^2*cos(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + 9
*cos(3*b*log(c))^2 + 9*sin(3*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 18053 vs. $2(154) = 308$.

Time = 1.46 (sec) , antiderivative size = 18053, normalized size of antiderivative = 112.83

$$\int x^2 \cos^3(a + b\log(cx^n))\, dx = \text{Too large to display}$$

```
[In] integrate(x^2*cos(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] -1/24*(18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 18*b^3*n^3*x^3*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a) + 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^
```

2 + 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 18*b^3*n^3*x^3*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(3/2*a)^2*tan(1/2*a)^2 + 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2
+ 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2*b^3*n^3*x^3*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*
b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 2
*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a) + 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 18*b^
3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(3/2*a)^2 - 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*b^3*n
^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2 + 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 18*b^3*n^3*
x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/2*a) + 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 18*b^3*n^3*x^
3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b

*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 18*b^3*n^3*
x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 18*b^3*n
^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 18*b^3
*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 18*
b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))*tan(1/2*a)^2 + 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b^3
*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 2*b^3*n^3
*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b^3*n^
3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^3*
n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 2*b^3
*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 2*b
^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2*
b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 +
18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2
+ 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)
^2 - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
 + 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
 + 108*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(

x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -

3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 2*b^3 *n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 2*b^3*n^3*x^3*e^ (3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*l og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n *sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/ 2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta n(3/2*a)^2 - 18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg n(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2 *pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 18*b^3*n ^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 18*b^3*n^3*x^3*e^(- 1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 18*b^3*n^3*x^3*e^(1/2*pi*b*n* sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1 /2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log (abs(c)))^2*tan(1/2*a) - 18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 18*b^3*n^3*x^3*e^(-1 /2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*ta n(1/2*a) + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 18*b*n*x^3*e^(-1/2* pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(ab s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 *tan(3/2*a)^2*tan(1/2*a) - 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))* tan(1/2*a)^2 - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b* sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^ 2 + 18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/ 2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 18*b^3* n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan (1/2*a)^2 - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn (c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan (1/2*a)^2 + 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log (abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 18*b*n*x^3*e^(1/2

*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(3/2*a)^2*tan(1/2*a)^2 + 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 1
8*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a)^2 + b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x^
3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*b^2*
n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a) - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(3/2*a)^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*
a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b
^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x^3*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x^3*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))*tan(1/2*a) + 108*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*

pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 2*b^3*n^3*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 18*b^3*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 2*b^3*n^3

*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*a) - 2*b^3*n^3*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*a) + 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 18*b*n*x^3*e^(-3/2*
pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a) - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 18*b*n*x^3*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^
2 + 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 18*b^3
*n^3*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*a) - 18*b^3*n^3*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn
(c) + 1/2*pi*b)*tan(1/2*a) + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 18*b*n*x^3*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/2*a) - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*
sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a
)^2*tan(1/2*a) - 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
^2*tan(1/2*a) + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
*tan(1/2*a) + 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a) + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2
- 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 18*b*n*
x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 18*b*n*x^
3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*

b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 18*b*n*x^3
*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 18*b*n*x^3*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 18*b*n*x^3*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 18*b*n*x^3*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 18*b*n*x^3*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 18*b*n*x^3*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^3*e^(3/2*
pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + b^2*n^2*x^3*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n
^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^2*n^2*x^3*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2 + 4*b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3
/2*a) + 4*b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + b^2*n
^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
3/2*a)^2 - 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*a)^2 - 27*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + b^2*n^2*x^3*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 - 9*x^3*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2 + 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*x^3*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*
a)^2 - 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) -

```
 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
*tan(1/2*a) + 108*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*x^3*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/
2*a)^2*tan(1/2*a) - b^2*n^2*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 27*b^2*n^2*x^3*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 -
b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(1/2*a)^2 + 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) -
 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 -
 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a)^2 + 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 36*x^3*e^(3/2
*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)*tan(1/2*a)^2 + 36*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 9*x^3*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*x^3*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*x^3*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*x^3*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*x^3*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
```

)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18*b*n*x^3*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18
*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2 - 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2 + 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(3/2*a) + 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3
/2*a) - 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 18*b*n*
x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 18*b*n*x^3*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3
/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))*tan(3/2*a)^2 - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3
/2*a)^2 - 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 18*b
*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 18*b*n*x^3*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) -
 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a) + 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/2*a) - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 18*b*n*x^
3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 18*b*n*x^3*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))*tan(1/2*a)^2 + 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2
*a)^2 - 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x^3*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 27*b^2*n^2*
x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 27*b^
2*n^2*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)

- b^2*n^2*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b) + 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2 + 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*x^3*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3
6*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a) + 36*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi
*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 9*x^3*e^(3/2*pi*b*n*sgn
(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(3/2*a)^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 -
9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*x^3*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)^2 + 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2
*a)^2 + 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*x^3*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))*tan(1/2*a) + 108*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn
(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*x^3*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))*tan(3/2*a)^2*tan(1/2*a) + 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*a)^2 + 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27
*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*x^3*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi

*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*x^3*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 36*x^3*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + 36*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(3/2*a)*tan(1/2*a)^2 + 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3
/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*x^3*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^
2 + 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*a)^2*tan(1/2*a)^2 + 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 18*b*n*x^3*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c))) - 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 18
*b*n*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 18*b*n*x^3*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c))) - 18*b*n*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*a) - 18*b*n*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) - 18*b*n*x^3*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 18*b*n*x^3*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) + 9*x
^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*x^3*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2 - 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*x
^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2 - 9*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 36*x^3*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(3/2*a) + 36*x^3*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))*tan(3/2*a) + 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*a)^2 - 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi

*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + 9*x^3*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 108*x^3*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(1/2*a) - 9*x^3*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(1/2*a)^2 + 27*x^3*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 27*x^3*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - 9*x^3*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - 9*x^3*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 27*x^3*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 27*x^3*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - 9*x^3*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b))/(b^4*n^4*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^
2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
3/2*a)^2 + b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a
)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^4*
n^4*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a)^2 + b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + b^4
*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^4*n^4*tan(3/2*a)^2
+ 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^4*n^4*tan(1/2*a)^2 + 10*b^
2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^4*n^4 + 10*
b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*

```
b*log(abs(c)))^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2 + 10*b^2*n^2*tan(3/2*a)^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^
2*tan(1/2*a)^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2 + 9*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*
a)^2 + 9*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*tan(3/2*a)^2*tan(1/2*a)^
2 + 9*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2 + 9*tan(3/2*a)^2 + 9*tan(1/2*a)^2 + 9)
```

Mupad [B] (verification not implemented)

Time = 27.91 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.76

$$\int x^2\cos^3\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^3\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}\,3\mathrm{i}}{8\,b\,n+24\mathrm{i}}+\frac{3\,x^3\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}{24+b\,n\,8\mathrm{i}}+\frac{x^3\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}\,1\mathrm{i}}{24\,b\,n+24\mathrm{i}}+\frac{x^3\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}{24+b\,n\,24\mathrm{i}}$$

```
[In] int(x^2*cos(a + b*log(c*x^n))^3,x)
```

```
[Out] (x^3*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(8*b*n + 24i) + (3*x^3*exp(a*1i)*(c*x^n)
^(b*1i))/(b*n*8i + 24) + (x^3*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(24*b*n + 24i)
+ (x^3*exp(a*3i)*(c*x^n)^(b*3i))/(b*n*24i + 24)
```

3.97 $\int x \cos^3(a + b \log(cx^n)) \, dx$

Optimal result 1353
Rubi [A] (verified) 1353
Mathematica [A] (verified) 1354
Maple [A] (verified) 1355
Fricas [A] (verification not implemented) 1355
Sympy [F] 1355
Maxima [B] (verification not implemented) 1356
Giac [B] (verification not implemented) 1357
Mupad [B] (verification not implemented) 1371

Optimal result

Integrand size = 15, antiderivative size = 158

$$\int x \cos^3(a + b \log(cx^n)) \, dx = \frac{12b^2n^2x^2 \cos(a + b \log(cx^n))}{16 + 40b^2n^2 + 9b^4n^4} + \frac{2x^2 \cos^3(a + b \log(cx^n))}{4 + 9b^2n^2} + \frac{6b^3n^3x^2 \sin(a + b \log(cx^n))}{16 + 40b^2n^2 + 9b^4n^4} + \frac{3bnx^2 \cos^2(a + b \log(cx^n)) \sin(a + b \log(cx^n))}{4 + 9b^2n^2}$$

```
[Out] 12*b^2*n^2*x^2*cos(a+b*ln(c*x^n))/(9*b^4*n^4+40*b^2*n^2+16)+2*x^2*cos(a+b*l
n(c*x^n))^3/(9*b^2*n^2+4)+6*b^3*n^3*x^2*sin(a+b*ln(c*x^n))/(9*b^4*n^4+40*b^
2*n^2+16)+3*b*n*x^2*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n))/(9*b^2*n^2+4)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {4576, 4574}

$$\int x \cos^3(a + b \log(cx^n)) \, dx = \frac{2x^2 \cos^3(a + b \log(cx^n))}{9b^2n^2 + 4} + \frac{3bnx^2 \sin(a + b \log(cx^n)) \cos^2(a + b \log(cx^n))}{9b^2n^2 + 4} + \frac{12b^2n^2x^2 \cos(a + b \log(cx^n))}{9b^4n^4 + 40b^2n^2 + 16} + \frac{6b^3n^3x^2 \sin(a + b \log(cx^n))}{9b^4n^4 + 40b^2n^2 + 16}$$

```
[In] Int[x*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (12*b^2*n^2*x^2*Cos[a + b*Log[c*x^n]])/(16 + 40*b^2*n^2 + 9*b^4*n^4) + (2*x
^2*Cos[a + b*Log[c*x^n]]^3)/(4 + 9*b^2*n^2) + (6*b^3*n^3*x^2*Sin[a + b*Log[
c*x^n]])/(16 + 40*b^2*n^2 + 9*b^4*n^4) + (3*b*n*x^2*Cos[a + b*Log[c*x^n]]^2
*Sin[a + b*Log[c*x^n]])/(4 + 9*b^2*n^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{2x^2\cos^3(a+b\log(cx^n))}{4+9b^2n^2} + \frac{3bnx^2\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{4+9b^2n^2} \\
&\quad + \frac{(6b^2n^2)\int x\cos(a+b\log(cx^n))\,dx}{4+9b^2n^2} \\
&= \frac{12b^2n^2x^2\cos(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4} + \frac{2x^2\cos^3(a+b\log(cx^n))}{4+9b^2n^2} \\
&\quad + \frac{6b^3n^3x^2\sin(a+b\log(cx^n))}{16+40b^2n^2+9b^4n^4} + \frac{3bnx^2\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{4+9b^2n^2}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.37 (sec) , antiderivative size = 123, normalized size of antiderivative = 0.78

$$\int x\cos^3(a+b\log(cx^n))\,dx$$
$$= \frac{x^2(6(4+9b^2n^2)\cos(a+b\log(cx^n)) + 2(4+b^2n^2)\cos(3(a+b\log(cx^n))) + 6bn(4+5b^2n^2+(4+b^2n^2)\cos}{4(16+40b^2n^2+9b^4n^4)}$$

```
[In] Integrate[x*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^2*(6*(4 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + 2*(4 + b^2*n^2)*Cos[3*(a +
b*Log[c*x^n])] + 6*b*n*(4 + 5*b^2*n^2 + (4 + b^2*n^2)*Cos[2*(a + b*Log[c*x^
n])])*Sin[a + b*Log[c*x^n]]))/(4*(16 + 40*b^2*n^2 + 9*b^4*n^4))
```

Maple [A] (verified)

Time = 4.09 (sec) , antiderivative size = 117, normalized size of antiderivative = 0.74

method	result
parallelrisch	$\frac{27x^{2}\left(\frac{2\left(b^{2}n^{2}+4\right)\cos\left(3b\ln\left(c\,x^{n}\right)+3a\right)}{27}+\frac{bn\left(b^{2}n^{2}+4\right)\sin\left(3b\ln\left(c\,x^{n}\right)+3a\right)}{9}+\left(\sin\left(a+b\ln\left(c\,x^{n}\right)\right)bn+2\cos\left(a+b\ln\left(c\,x^{n}\right)\right)\right)\left(b^{2}n^{2}+\frac{4}{9}\right)\right)}{4\left(9b^{4}n^{4}+40b^{2}n^{2}+16\right)}$

[In] int(x*cos(a+b*ln(c*x^n))^3,x,method=_RETURNVERBOSE)

[Out] 27/4*x^2*(2/27*(b^2*n^2+4)*cos(3*b*ln(c*x^n)+3*a)+1/9*b*n*(b^2*n^2+4)*sin(3*b*ln(c*x^n)+3*a)+(sin(a+b*ln(c*x^n))*b*n+2*cos(a+b*ln(c*x^n)))*(b^2*n^2+4/9))/(9*b^4*n^4+40*b^2*n^2+16)

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 129, normalized size of antiderivative = 0.82

$$\int x\cos^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx$$
$$=\frac{12\,b^{2}n^{2}x^{2}\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+2\left(b^{2}n^{2}+4\right)x^{2}\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^{3}+3\left(2\,b^{3}n^{3}x^{2}+\left(\right.\right.}{9\,b^{4}n^{4}+40\,b^{2}n^{2}+16}$$

[In] integrate(x*cos(a+b*log(c*x^n))^3,x, algorithm="fricas")

[Out] (12*b^2*n^2*x^2*cos(b*n*log(x) + b*log(c) + a) + 2*(b^2*n^2 + 4)*x^2*cos(b*n*log(x) + b*log(c) + a)^3 + 3*(2*b^3*n^3*x^2 + (b^3*n^3 + 4*b*n)*x^2*cos(b*n*log(x) + b*log(c) + a)^2)*sin(b*n*log(x) + b*log(c) + a))/(9*b^4*n^4 + 40*b^2*n^2 + 16)

Sympy [F]

$$\int x\cos^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx$$
$$=\begin{cases}\int x\cos^{3}\left(a-\frac{2i\log\left(cx^{n}\right)}{n}\right)dx\\ \int x\cos^{3}\left(a-\frac{2i\log\left(cx^{n}\right)}{3n}\right)dx\\ \int x\cos^{3}\left(a+\frac{2i\log\left(cx^{n}\right)}{3n}\right)dx\\ \int x\cos^{3}\left(a+\frac{2i\log\left(cx^{n}\right)}{n}\right)dx\\ \frac{6b^{3}n^{3}x^{2}\sin^{3}\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}+\frac{9b^{3}n^{3}x^{2}\sin\left(a+b\log\left(cx^{n}\right)\right)\cos^{2}\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}+\frac{12b^{2}n^{2}x^{2}\sin^{2}\left(a+b\log\left(cx^{n}\right)\right)\cos\left(a+b\log\left(cx^{n}\right)\right)}{9b^{4}n^{4}+40b^{2}n^{2}+16}+\frac{14}{}\end{cases}$$

```
[In] integrate(x*cos(a+b*ln(c*x**n))**3,x)
```

```
[Out] Piecewise((Integral(x*cos(a - 2*I*log(c*x**n)/n)**3, x), Eq(b, -2*I/n)), (I
ntegral(x*cos(a - 2*I*log(c*x**n)/(3*n))**3, x), Eq(b, -2*I/(3*n))), (Integ
ral(x*cos(a + 2*I*log(c*x**n)/(3*n))**3, x), Eq(b, 2*I/(3*n))), (Integral(x
*cos(a + 2*I*log(c*x**n)/n)**3, x), Eq(b, 2*I/n)), (6*b**3*n**3*x**2*sin(a
+ b*log(c*x**n))**3/(9*b**4*n**4 + 40*b**2*n**2 + 16) + 9*b**3*n**3*x**2*si
n(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4 + 40*b**2*n**2
+ 16) + 12*b**2*n**2*x**2*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/
(9*b**4*n**4 + 40*b**2*n**2 + 16) + 14*b**2*n**2*x**2*cos(a + b*log(c*x**n)
)**3/(9*b**4*n**4 + 40*b**2*n**2 + 16) + 12*b*n*x**2*sin(a + b*log(c*x**n))
*cos(a + b*log(c*x**n))**2/(9*b**4*n**4 + 40*b**2*n**2 + 16) + 8*x**2*cos(a
 + b*log(c*x**n))**3/(9*b**4*n**4 + 40*b**2*n**2 + 16), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1015 vs. $2(158) = 316$.

Time = 0.26 (sec) , antiderivative size = 1015, normalized size of antiderivative = 6.42

$$\int x\cos^3(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*b*
log(c)) + b^3*sin(3*b*log(c)))*n^3 + 2*(b^2*cos(6*b*log(c))*cos(3*b*log(c))
 + b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 12*(b*c
os(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(
3*b*log(c)))*n + 8*cos(6*b*log(c))*cos(3*b*log(c)) + 8*sin(6*b*log(c))*sin(
3*b*log(c)) + 8*cos(3*b*log(c)))*x^2*cos(3*b*log(x^n) + 3*a) + 3*(9*(b^3*co
s(3*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*c
os(2*b*log(c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 +
 18*(b^2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(
c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log
(c)))*n^2 + 4*(b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*
b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*l
og(c)))*n + 8*cos(4*b*log(c))*cos(3*b*log(c)) + 8*cos(3*b*log(c))*cos(2*b*l
og(c)) + 8*sin(4*b*log(c))*sin(3*b*log(c)) + 8*sin(3*b*log(c))*sin(2*b*log(
c)))*x^2*cos(b*log(x^n) + a) + (3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^
3*sin(6*b*log(c))*sin(3*b*log(c)) + b^3*cos(3*b*log(c)))*n^3 - 2*(b^2*cos(3
*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(
3*b*log(c)))*n^2 + 12*(b*cos(6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c)
)*sin(3*b*log(c)) + b*cos(3*b*log(c)))*n - 8*cos(3*b*log(c))*sin(6*b*log(c)
) + 8*cos(6*b*log(c))*sin(3*b*log(c)) - 8*sin(3*b*log(c)))*x^2*sin(3*b*log(
x^n) + 3*a) + 3*(9*(b^3*cos(4*b*log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c
```

```
))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(
c))*sin(2*b*log(c)))*n^3 - 18*(b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*co
s(4*b*log(c))*sin(3*b*log(c)) + b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*c
os(3*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(4*b*log(c))*cos(3*b*log(c))
+ b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b
*sin(3*b*log(c))*sin(2*b*log(c)))*n - 8*cos(3*b*log(c))*sin(4*b*log(c)) + 8
*cos(4*b*log(c))*sin(3*b*log(c)) - 8*cos(2*b*log(c))*sin(3*b*log(c)) + 8*co
s(3*b*log(c))*sin(2*b*log(c)))*x^2*sin(b*log(x^n) + a))/(9*(b^4*cos(3*b*log
(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 40*(b^2*cos(3*b*log(c))^2 + b^2*sin(3
*b*log(c))^2)*n^2 + 16*cos(3*b*log(c))^2 + 16*sin(3*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 18069 vs. 2(158) = 316.

Time = 1.23 (sec) , antiderivative size = 18069, normalized size of antiderivative = 114.36

$$\int x\cos^3(a+b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] -1/4*(27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 27*b^3*n^3*x^2*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)^2*tan(1/2*a) + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2
 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(1/2*p
i*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*ta
n(3/2*a)^2*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 +
 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b
```

```
^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*
b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a) + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 27*b^3
*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(3/2*a)^2 - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 3*b^3*n^
3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^3*n^3*x
^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/2*a) + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 27*b^3*n^3*x^2
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 27*b^3*n^3*x
^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 27*b^3*n^
3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 27*b^3*
n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 27*b
^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(1/2*a)^2 + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 3*b^3*
n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
```

))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*b^3*n^3*
x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 3*b^3*n^3
*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 3*b^3*n
^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 3*b^3*
n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 3*b^
3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 3*b
^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 2
7*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 +
 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^
2 - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
+ 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
+ 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x^2*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*ta
n(3/2*a)^2*tan(1/2*a) + b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x^2*e^
(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n

^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x^2*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^2*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^2*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^3*n^3*
x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c))) - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c))) - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*b^3*n^3*x^2*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2 + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 3*b^3*
n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 3*b^3*n^3*x^2*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a) + 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(3/2*a)^2 + 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(3/2*a)^2 - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 -
27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 27*b^3*n^
3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 27*b^3*n^3*x^2*e^(-1

/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/2*a) + 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/2*a) - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 27*b^3*n^3*x^2*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan
(1/2*a) + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 12*b*n*x^2*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a) - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*t
an(1/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2
 + 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 27*b^3*n
^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(
1/2*a)^2 - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(
1/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 12
*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*t
an(1/2*a)^2 + b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x^2
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b

*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a bs(c)))^2 + b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo g(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2 *pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a bs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*b^2*n ^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan (3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l og(abs(c)))^2*tan(3/2*a) - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2* tan(3/2*a)^2 - 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b* sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^ 2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)* tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x^2*e ^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n* log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi* b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2 *b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi *b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1 /2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x^2*e^ (-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n* log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p i*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2 *a)^2*tan(1/2*a) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2 *pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3 /2*a)^2*tan(1/2*a) + b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi *b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/ 2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2* x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/ 2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x^2*e^(3/2* pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(ab s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sg n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1 /2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1 /2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log (abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 *tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b* sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)* tan(1/2*a)^2 + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b* sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)* tan(1/2*a)^2 + b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn (c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sg n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2* pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*p i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*x^2*e^(3/ 2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) ^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1 /2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 1 2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b* log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/ 2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*b^3*n^3*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 3*b^3*n^3*x^2* e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b* n*log(abs(x)) + 3/2*b*log(abs(c))) - 27*b^3*n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo g(abs(c))) - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s gn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 3*b^3*n^3* x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2 *a) - 3*b^3*n^3*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1 /2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 12*b*n*x^2*e^(-3/2*p i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs (x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2* tan(3/2*a) - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log (abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2 *b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi* b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1 /2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*p i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs

(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^3*
n^3*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(1/2*a) - 27*b^3*n^3*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(1/2*a) + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 12*b*n*x^2*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/2*a) - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
^2*tan(1/2*a) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^
2*tan(1/2*a) + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a) + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*t
an(1/2*a) + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2
- 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*n*x
^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 12*b*n*x^2
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*n*x^2*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*n*x^2*e^
(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 12*b*n*x^2*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x^2*e^(3/2*p
i*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2 - 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c

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)))^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + b^2*n^2*x^2*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^
2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 + 4*b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/
2*a) + 4*b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + b^2*n^
2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*a)^2 - 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(3/2*a)^2 - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + b^2*n^2*x^2*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 - 4*x^2*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*x^2*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a
)^2 - 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(1/2*a) + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a
)^2*tan(1/2*a) - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 27*b^2*n^2*x^2*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - b^2
*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(1/2*a)^2 + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/
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2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))

+ 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 27*b^2*n^2*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 27*b^2*n^2*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - b^2*n^2*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b

*log(abs(c)))^2*tan(3/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(3/2*a)^2 - 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 4*
x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 4*x^2*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2 + 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)
^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 48*x^2*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 48*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))*tan(3/2*a)^2*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(3/2*a)^2*tan(1/2*a) + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*x^2*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*a)^2 - 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12
*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 4*x^2*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 16*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(3/2*a)*tan(1/2*a)^2 + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*t
an(3/2*a)*tan(1/2*a)^2 + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b
*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*
x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/
2*a)^2*tan(1/2*a)^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(

x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c))) - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 12*b*n*x^
2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c))) - 12*b*n*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c))) - 12*b*n*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*a) - 12*b*n*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) - 12*b*n*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 12*b*n*x^2*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) + 4*x^2*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2 - 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2 - 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*x^2*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2 - 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 16*x^2*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))*tan(3/2*a) + 16*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(
3/2*a) + 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(3/2*a)^2 - 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*a)^2 - 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + 4*x^2*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 48*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(1/2*a) + 48*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(1/2*a) - 4*x^2*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(1/2*a)^2 + 12*x^2*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 12*x^2*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - 4*x^2*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - 4*x^2*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 12*x^2*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 12*x^2*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - 4*x^2*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b))/(9*b^4*n^4*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^

```
2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9
*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*
a)^2 + 9*b^4*n^4*tan(3/2*a)^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^
4*n^4*tan(3/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4
*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 40*b^2*n^2*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 40*
b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2
*a)^2 + 9*b^4*n^4 + 40*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 40*b^2*n^2*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 40*b^2*n^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 40*b^2*n^2*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/2*a)^2*tan(1/2
*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 40*b^2*n^2*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 40*b^2*n^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2 + 40*b^2*n^2*tan(3/2*a)^2 + 16*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)^2 + 40*b^2*n^2*tan(1/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^
2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*
a)^2 + 16*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 + 40*b^2*n^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 16*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 16*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*a)^2 + 16*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*
a)^2 + 16*tan(3/2*a)^2*tan(1/2*a)^2 + 16*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2 + 16*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 16*tan(3
/2*a)^2 + 16*tan(1/2*a)^2 + 16)
```

Mupad [B] (verification not implemented)

Time = 26.99 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.77

$$\int x\cos^3\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x^2\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}\,3\mathrm{i}}{8\,b\,n+16\mathrm{i}}+\frac{3\,x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}{16+b\,n\,8\mathrm{i}}+\frac{x^2\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}\,1\mathrm{i}}{24\,b\,n+16\mathrm{i}}+\frac{x^2\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}{16+b\,n\,24\mathrm{i}}$$

```
[In] int(x*cos(a + b*log(c*x^n))^3,x)
```

```
[Out] (x^2*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(8*b*n + 16i) + (3*x^2*exp(a*1i)*(c*x^n)
^(b*1i))/(b*n*8i + 16) + (x^2*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(24*b*n + 16i)
+ (x^2*exp(a*3i)*(c*x^n)^(b*3i))/(b*n*24i + 16)
```

3.98 $\int \cos^3(a+b\log(cx^n))\,dx$

Optimal result 1372
Rubi [A] (verified) 1372
Mathematica [A] (verified) 1373
Maple [A] (verified) 1374
Fricas [A] (verification not implemented) 1374
Sympy [F] 1375
Maxima [B] (verification not implemented) 1375
Giac [B] (verification not implemented) 1376
Mupad [B] (verification not implemented) 1390

Optimal result

Integrand size = 13, antiderivative size = 149

$$\int \cos^3(a+b\log(cx^n))\,dx=\frac{6b^2n^2x\cos(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4}+\frac{x\cos^3(a+b\log(cx^n))}{1+9b^2n^2}+\frac{6b^3n^3x\sin(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4}+\frac{3bnx\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+9b^2n^2}$$

```
[Out] 6*b^2*n^2*x*cos(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)+x*cos(a+b*ln(c*x^n)
)^3/(9*b^2*n^2+1)+6*b^3*n^3*x*sin(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)+3
*b*n*x*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n))/(9*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.154, Rules used = {4566, 4564}

$$\int \cos^3(a+b\log(cx^n))\,dx=\frac{x\cos^3(a+b\log(cx^n))}{9b^2n^2+1}+\frac{3bnx\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{9b^2n^2+1}+\frac{6b^2n^2x\cos(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1}+\frac{6b^3n^3x\sin(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (6*b^2*n^2*x*Cos[a + b*Log[c*x^n]])/(1 + 10*b^2*n^2 + 9*b^4*n^4) + (x*Cos[a
 + b*Log[c*x^n]]^3)/(1 + 9*b^2*n^2) + (6*b^3*n^3*x*Sin[a + b*Log[c*x^n]])/(
```

```
1 + 10*b^2*n^2 + 9*b^4*n^4) + (3*b*n*x*Cos[a + b*Log[c*x^n]]^2*Sin[a + b*Lo
g[c*x^n]])/(1 + 9*b^2*n^2)
```

Rule 4564

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] + Simp[b*d*n*x*(Sin[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rule 4566

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Cos[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Cos[d*(a + b*Log[c*x^n])]^(p -
2), x], x] + Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]^(p - 1)*(Sin[d*(a + b
*Log[c*x^n])]/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{x\cos^3(a+b\log(cx^n))}{1+9b^2n^2}+\frac{3bnx\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+9b^2n^2}\\&\quad+\frac{(6b^2n^2)\int\cos(a+b\log(cx^n))\,dx}{1+9b^2n^2}\\&=\frac{6b^2n^2x\cos(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4}+\frac{x\cos^3(a+b\log(cx^n))}{1+9b^2n^2}\\&\quad+\frac{6b^3n^3x\sin(a+b\log(cx^n))}{1+10b^2n^2+9b^4n^4}+\frac{3bnx\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+9b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.33 (sec) , antiderivative size = 117, normalized size of antiderivative = 0.79

$$\int\cos^3(a+b\log(cx^n))\,dx$$
$$=\frac{x(3(1+9b^2n^2)\cos(a+b\log(cx^n))+(1+b^2n^2)\cos(3(a+b\log(cx^n)))+6bn(1+5b^2n^2+(1+b^2n^2)\cos}{4+40b^2n^2+36b^4n^4}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x*(3*(1 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + (1 + b^2*n^2)*Cos[3*(a + b*Lo
g[c*x^n])] + 6*b*n*(1 + 5*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a + b*Log[c*x^n])]
)*Sin[a + b*Log[c*x^n]]))/(4 + 40*b^2*n^2 + 36*b^4*n^4)
```

Maple [A] (verified)

Time = 3.26 (sec) , antiderivative size = 113, normalized size of antiderivative = 0.76

method	result
parallelrisch	$\frac{27\left(\frac{\left(b^{2} n^{2}+1\right) \cos\left(3 b \ln\left(c\, x^{n}\right)+3 a\right)}{27}+\frac{b n \left(b^{2} n^{2}+1\right) \sin\left(3 b \ln\left(c\, x^{n}\right)+3 a\right)}{9}+\left(b^{2} n^{2}+\frac{1}{9}\right)\left(\sin\left(a+b\ln\left(c\, x^{n}\right)\right) b n+\cos\left(a+b\ln\left(c\, x^{n}\right)\right)\right)\right) x}{4\left(9 b^{4} n^{4}+10 b^{2} n^{2}+1\right)}$
default	$\frac{3\,{e}^{\frac{\ln\left(c\, x^{n}\right)}{n}-\frac{\ln\left(c\right)}{n}} \cos\left(a+b\ln\left(c\, x^{n}\right)\right)}{4 n^{2}\left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{3 b\,{e}^{\frac{\ln\left(c\, x^{n}\right)}{n}-\frac{\ln\left(c\right)}{n}} \sin\left(a+b\ln\left(c\, x^{n}\right)\right)}{4 n\left(\frac{1}{n^{2}}+b^{2}\right)}+\frac{{e}^{\frac{\ln\left(c\, x^{n}\right)}{n}-\frac{\ln\left(c\right)}{n}} \cos\left(3 b \ln\left(c\, x^{n}\right)+3 a\right)}{4 n^{2}\left(\frac{1}{n^{2}}+9 b^{2}\right)}+3 b\,{e}^{\ln(}$

```
[In] int(cos(a+b*ln(c*x^n))^3,x,method=_RETURNVERBOSE)
```

```
[Out] 27/4*(1/27*(b^2*n^2+1)*cos(3*b*ln(c*x^n)+3*a)+1/9*b*n*(b^2*n^2+1)*sin(3*b*l
n(c*x^n)+3*a)+(b^2*n^2+1/9)*(sin(a+b*ln(c*x^n))*b*n+cos(a+b*ln(c*x^n))))*x/
(9*b^4*n^4+10*b^2*n^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 119, normalized size of antiderivative = 0.80

$$\int \cos^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx$$
$$= \frac{6\,b^{2}n^{2}x\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+(b^{2}n^{2}+1)x\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^{3}+3\left(2\,b^{3}n^{3}x+(b^{3}n^{3}+\right.}{9\,b^{4}n^{4}+10\,b^{2}n^{2}+1}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] (6*b^2*n^2*x*cos(b*n*log(x) + b*log(c) + a) + (b^2*n^2 + 1)*x*cos(b*n*log(x
) + b*log(c) + a)^3 + 3*(2*b^3*n^3*x + (b^3*n^3 + b*n)*x*cos(b*n*log(x) + b
*log(c) + a)^2)*sin(b*n*log(x) + b*log(c) + a))/(9*b^4*n^4 + 10*b^2*n^2 + 1
)
```

Sympy [F]

$$\int \cos^3(a + b\log(cx^n))\,dx$$

$$= \begin{cases} \int \cos^3\left(a - \frac{i\log(cx^n)}{n}\right)dx \\ \int \cos^3\left(a - \frac{i\log(cx^n)}{3n}\right)dx \\ \int \cos^3\left(a + \frac{i\log(cx^n)}{3n}\right)dx \\ \int \cos^3\left(a + \frac{i\log(cx^n)}{n}\right)dx \\ \frac{6b^3n^3x\sin^3(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} + \frac{9b^3n^3x\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} + \frac{6b^2n^2x\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^4n^4+10b^2n^2+1} + \frac{7b^2n^2x}{9b} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**3,x)
```

```
[Out] Piecewise((Integral(cos(a - I*log(c*x**n)/n)**3, x), Eq(b, -I/n)), (Integra
l(cos(a - I*log(c*x**n)/(3*n))**3, x), Eq(b, -I/(3*n))), (Integral(cos(a +
I*log(c*x**n)/(3*n))**3, x), Eq(b, I/(3*n))), (Integral(cos(a + I*log(c*x**
n)/n)**3, x), Eq(b, I/n)), (6*b**3*n**3*x*sin(a + b*log(c*x**n))**3/(9*b**4
*n**4 + 10*b**2*n**2 + 1) + 9*b**3*n**3*x*sin(a + b*log(c*x**n))*cos(a + b*
log(c*x**n))**2/(9*b**4*n**4 + 10*b**2*n**2 + 1) + 6*b**2*n**2*x*sin(a + b*
log(c*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4 + 10*b**2*n**2 + 1) + 7
*b**2*n**2*x*cos(a + b*log(c*x**n))**3/(9*b**4*n**4 + 10*b**2*n**2 + 1) + 3
*b*n*x*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4 + 10*b
**2*n**2 + 1) + x*cos(a + b*log(c*x**n))**3/(9*b**4*n**4 + 10*b**2*n**2 + 1
), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 989 vs. $2(149) = 298$.

Time = 0.26 (sec) , antiderivative size = 989, normalized size of antiderivative = 6.64

$$\int \cos^3(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*b*
log(c)) + b^3*sin(3*b*log(c)))*n^3 + (b^2*cos(6*b*log(c))*cos(3*b*log(c)) +
 b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 3*(b*cos(
3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(3*b
*log(c)))*n + cos(6*b*log(c))*cos(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log
```

```
(c)) + cos(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(3*b*log(c
))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b*log(
c))*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 + 9*(b^2*cos
(4*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*si
n(4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log(c)))*n^2 +
(b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)) + b*
cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n + co
s(4*b*log(c))*cos(3*b*log(c)) + cos(3*b*log(c))*cos(2*b*log(c)) + sin(4*b*l
og(c))*sin(3*b*log(c)) + sin(3*b*log(c))*sin(2*b*log(c)))*x*cos(b*log(x^n)
+ a) + (3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*
b*log(c)) + b^3*cos(3*b*log(c)))*n^3 - (b^2*cos(3*b*log(c))*sin(6*b*log(c))
 - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 3*(b*co
s(6*b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3
*b*log(c)))*n - cos(3*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(3*b*l
og(c)) - sin(3*b*log(c)))*x*sin(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(4*b*log
(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*lo
g(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 - 9*(b^2*c
os(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c)) + b^2*
cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c)))*n^2
+ (b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c)) +
b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n -
cos(3*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)) - cos(2*b
*log(c))*sin(3*b*log(c)) + cos(3*b*log(c))*sin(2*b*log(c)))*x*sin(b*log(x^n
) + a))/(9*(b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 10*(b^2*co
s(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + cos(3*b*log(c))^2 + sin(3*b*
log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 17458 vs. $2(149) = 298$.

Time = 0.80 (sec) , antiderivative size = 17458, normalized size of antiderivative = 117.17

$$\int \cos^3(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] -1/8*(54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a) + 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3
/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b
```

^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2
*tan(1/2*a)^2 + 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x
*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*
a)^2 - b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
- b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a) + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 -
54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b^3*n
^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)^2 + 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^3*n^3*x*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/2*a) - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3

/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*
pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 54*b^3*n^3*x*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(1/2*a)^2 - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*b^3*n^3*x*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
2*a)^2 + 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2
*a)^2 + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2
*a)^2 - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*
a)^2 - 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*
a)^2 + 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a
)^2 + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a
)^2 + 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a
)^2 + 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*
a)^2 - b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) -
 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108
*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*e^(-1/2*pi*b*n*sgn

(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*

pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
3/2*a) - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b^3
*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b^3*n^3*x*e^(3/2
*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(3/2*a)^2 - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(3/2*a)^2 - 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)
^2 - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^3*n
^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^3*n^3*x*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/2*a) - 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*t
an(1/2*a) + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)^2*tan(1/2*a) - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*a)^2 - 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 54*b^
3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 54*b^3*n^3*x*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 6*b
^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2

+ 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 +
27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*b^2*n
^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a) + 4*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - b^2*n^2*x*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a)^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*
b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2
*a)^2 + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2
*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^2
*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*

tan(3/2*a)^2*tan(1/2*a) + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*a)^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a)^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
^2 + 4*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2
+ 4*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 +
b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*ta
n(1/2*a)^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^
2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 - x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c))) - 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 54*b
^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 54*b^3*n^3*x*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c))) - 6*b^3*n^3*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(3/2*a) - 6*b^3*n^3*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) + 6*b*n*x*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2

*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)
 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 6*b*n*x*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(3/2*a)^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c
) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 -
 54*b^3*n^3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*a) - 54*b^3*n^3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*a) + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 6*b*n*x*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a) - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*ta
n(1/2*a) - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/
2*a) + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)
+ 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 6*
b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))*tan(1/2*a)^2 + 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*n*x*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/2*a)^2 - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan

(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + 4*b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + b^2*n^2*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 108*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)

))*tan(3/2*a)^2*tan(1/2*a) + 12*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - b^2*n^2*
x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a
)^2 + 27*b^2*n^2*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*a)^2 + 27*b^2*n^2*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - b^2*n^2*x*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + x*e^(3/2*pi*b*n*sgn
(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a
)^2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + x*e^(-3/2*pi*b
*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/2*a)^2 + 4*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*x*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1
/2*a)^2 - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*b*n*x*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 6
*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan

(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2 + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 6*
b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*n*x*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a) + 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2
 + 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 - 6*b*n*x*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(3/2*a)^2 - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*a) - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 6*b*n*x*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 6*b*n*x*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a) - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)
 - 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*n*x*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))*tan(1/2*a)^2 + 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2
*a)^2 - 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 27*b^2*n^2*x*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 27*b^2*n^2*x*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - b^2*n^2*x*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) + x*e^(3/2
*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(

abs(x)) + 1/2*b*log(abs(c)))^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*x*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*x*e^
(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a) - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a)^2 - x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
3/2*a)^2 + x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^
2 + 12*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(1/2*a) + 12*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*x*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 12*x*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(3/2*a)^2*tan(1/2*a) + x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*a)^2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*x*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3
/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*a)^2 - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
^2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*x*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/2*a)^2 + 4*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/

2*a)^2 + 4*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) - 6*b*n*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) - 6*b*n*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) - 6*b*n*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) - 6*b*n*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) + x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + 4*x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 - 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 - 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 + x*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + 12*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 + 3*x*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 + 3*x*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - x*e^(-

```
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 -
 x*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) - 3*x*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) - 3*x*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) - x*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b))/(9*b^4*n^4*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)
^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*
n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/2*a)^2 + 9*b^4*n^4*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
 + 9*b^4*n^4*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b
^4*n^4*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n
^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*t
an(1/2*a)^2 + 9*b^4*n^4 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*a)^2*t
an(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/2*a)^2 + tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
 tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 +
 10*b^2*n^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(3/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
```

```
2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(3/2*a)^2*tan(
1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2 + tan(3/2*a)^2 + tan(1/2*a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.11 (sec) , antiderivative size = 114, normalized size of antiderivative = 0.77

$$\int \cos^3(a + b\log(cx^n))\,dx = \frac{x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,1\mathrm{i}}}\,3\mathrm{i}}{8\,b\,n + 8\mathrm{i}} + \frac{3\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{8 + b\,n\,8\mathrm{i}} + \frac{x\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{(c\,x^n)^{b\,3\mathrm{i}}}\,1\mathrm{i}}{24\,b\,n + 8\mathrm{i}} + \frac{x\,\mathrm{e}^{a\,3\mathrm{i}}\,(c\,x^n)^{b\,3\mathrm{i}}}{8 + b\,n\,24\mathrm{i}}$$

```
[In] int(cos(a + b*log(c*x^n))^3,x)
```

```
[Out] (x*exp(-a*1i)/(c*x^n)^(b*1i)*3i)/(8*b*n + 8i) + (3*x*exp(a*1i)*(c*x^n)^(b*1
i))/(b*n*8i + 8) + (x*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(24*b*n + 8i) + (x*exp(
a*3i)*(c*x^n)^(b*3i))/(b*n*24i + 8)
```

3.99 $\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx$

Optimal result 1391
Rubi [A] (verified) 1391
Mathematica [A] (verified) 1392
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Optimal result

Integrand size = 17, antiderivative size = 42

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx=\frac{\sin(a+b\log(cx^n))}{bn}-\frac{\sin^3(a+b\log(cx^n))}{3bn}$$

```
[Out] sin(a+b*ln(c*x^n))/b/n-1/3*sin(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 42, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {2713}

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx=\frac{\sin(a+b\log(cx^n))}{bn}-\frac{\sin^3(a+b\log(cx^n))}{3bn}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^3/x,x]
[Out] Sin[a + b*Log[c*x^n]]/(b*n) - Sin[a + b*Log[c*x^n]]^3/(3*b*n)
```

Rule 2713

```
Int[sin[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
nd[(1 - x^2)^((n - 1)/2), x], x], x, Cos[c + d*x]], x] /; FreeQ[{c, d}, x]
&& IGtQ[(n - 1)/2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \cos^3(a+bx)\,dx,x,\log(cx^n)\right)}{n}\\&=-\frac{\text{Subst}\left(\int (1-x^2)\,dx,x,-\sin(a+b\log(cx^n))\right)}{bn}\\&=\frac{\sin(a+b\log(cx^n))}{bn}-\frac{\sin^3(a+b\log(cx^n))}{3bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 42, normalized size of antiderivative = 1.00

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx=\frac{\sin(a+b\log(cx^n))}{bn}-\frac{\sin^3(a+b\log(cx^n))}{3bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^3/x,x]
[Out] Sin[a + b*Log[c*x^n]]/(b*n) - Sin[a + b*Log[c*x^n]]^3/(3*b*n)
```

Maple [A] (verified)

Time = 4.70 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.83

method	result	size
derivativedivides	$\frac{\left(2+\cos(a+b\ln(c\,x^n))^2\right)\sin(a+b\ln(c\,x^n))}{3nb}$	35
default	$\frac{\left(2+\cos(a+b\ln(c\,x^n))^2\right)\sin(a+b\ln(c\,x^n))}{3nb}$	35
parallelrisch	$\frac{\sin(3b\ln(c\,x^n)+3a)+9\sin(a+b\ln(c\,x^n))}{12bn}$	37

```
[In] int(cos(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)
[Out] 1/3/n/b*(2+cos(a+b*ln(c*x^n))^2)*sin(a+b*ln(c*x^n))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.86

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx=\frac{\left(\cos(bn\log(x)+b\log(c)+a)^2+2\right)\sin(bn\log(x)+b\log(c)+a)}{3\,bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3/x,x, algorithm="fricas")
[Out] 1/3*(cos(b*n*log(x) + b*log(c) + a)^2 + 2)*sin(b*n*log(x) + b*log(c) + a)/(
b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 71 vs. $2(32) = 64$.

Time = 1.27 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.69

$$\int \frac{\cos^3(a + b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\cos^3(a) & \text{for } b = 0 \wedge (b = 0 \vee n = 0) \\ \log(x)\cos^3(a + b\log(c)) & \text{for } n = 0 \\ \frac{2\sin^3(a+b\log(cx^n))}{3bn} + \frac{\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**3/x,x)
```

```
[Out] Piecewise((log(x)*cos(a)**3, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos
(a + b*log(c))**3, Eq(n, 0)), (2*sin(a + b*log(c*x**n))**3/(3*b*n) + sin(a
+ b*log(c*x**n))*cos(a + b*log(c*x**n))**2/(b*n), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 232 vs. $2(40) = 80$.

Time = 0.23 (sec) , antiderivative size = 232, normalized size of antiderivative = 5.52

$$\int \frac{\cos^3(a + b\log(cx^n))}{x}\,dx = \frac{(\cos(3b\log(c))\sin(6b\log(c)) - \cos(6b\log(c))\sin(3b\log(c)) + \sin(3b\log(c)))\cos(3b\log(x^n) + 3a) +}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3/x,x, algorithm="maxima")
```

```
[Out] 1/24*((cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(3*b*log(c)) +
sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) + 9*(cos(3*b*log(c))*sin(4*b*log(c
)) - cos(4*b*log(c))*sin(3*b*log(c)) + cos(2*b*log(c))*sin(3*b*log(c)) - co
s(3*b*log(c))*sin(2*b*log(c)))*cos(b*log(x^n) + a) + (cos(6*b*log(c))*cos(3
*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) + cos(3*b*log(c)))*sin(3*b*log
(x^n) + 3*a) + 9*(cos(4*b*log(c))*cos(3*b*log(c)) + cos(3*b*log(c))*cos(2*b
*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)) + sin(3*b*log(c))*sin(2*b*log(c)
))*sin(b*log(x^n) + a))/(b*n)
```

Giac [F]

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^3}{x}\,dx$$

[In] integrate(cos(a+b*log(c*x^n))^3/x,x, algorithm="giac")

[Out] integrate(cos(b*log(c*x^n) + a)^3/x, x)

Mupad [B] (verification not implemented)

Time = 27.89 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.88

$$\int \frac{\cos^3(a+b\log(cx^n))}{x}\,dx = \frac{3\,\sin(a+b\,\ln(c\,x^n))-\sin(a+b\,\ln(c\,x^n))^3}{3\,b\,n}$$

[In] int(cos(a + b*log(c*x^n))^3/x,x)

[Out] (3*sin(a + b*log(c*x^n)) - sin(a + b*log(c*x^n))^3)/(3*b*n)

3.100 $\int \frac{\cos^3(a+b\log(cx^n))}{x^2} dx$

Optimal result 1395
Rubi [A] (verified) 1395
Mathematica [A] (verified) 1396
Maple [A] (verified) 1397
Fricas [A] (verification not implemented) 1397
Sympy [C] (verification not implemented) 1398
Maxima [B] (verification not implemented) 1399
Giac [F] 1400
Mupad [F(-1)] 1400

Optimal result

Integrand size = 17, antiderivative size = 158

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2} dx = -\frac{6b^2n^2\cos(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)x} - \frac{\cos^3(a+b\log(cx^n))}{(1+9b^2n^2)x} + \frac{6b^3n^3\sin(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)x} + \frac{3bn\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+9b^2n^2)x}$$

```
[Out] -6*b^2*n^2*cos(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)/x-cos(a+b*ln(c*x^n))
^3/(9*b^2*n^2+1)/x+6*b^3*n^3*sin(a+b*ln(c*x^n))/(9*b^4*n^4+10*b^2*n^2+1)/x+
3*b*n*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n))/(9*b^2*n^2+1)/x
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 4574}

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2} dx = -\frac{\cos^3(a+b\log(cx^n))}{x(9b^2n^2+1)} + \frac{3bn\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{x(9b^2n^2+1)} - \frac{6b^2n^2\cos(a+b\log(cx^n))}{x(9b^4n^4+10b^2n^2+1)} + \frac{6b^3n^3\sin(a+b\log(cx^n))}{x(9b^4n^4+10b^2n^2+1)}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] (-6*b^2*n^2*Cos[a + b*Log[c*x^n]])/((1 + 10*b^2*n^2 + 9*b^4*n^4)*x) - Cos[a
 + b*Log[c*x^n]]^3/((1 + 9*b^2*n^2)*x) + (6*b^3*n^3*Sin[a + b*Log[c*x^n]])/
((1 + 10*b^2*n^2 + 9*b^4*n^4)*x) + (3*b*n*Cos[a + b*Log[c*x^n]]^2*Sin[a + b
*Log[c*x^n]])/((1 + 9*b^2*n^2)*x)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= -\frac{\cos^3(a+b\log(cx^n))}{(1+9b^2n^2)\,x}+\frac{3bn\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+9b^2n^2)\,x}\\
&\quad+\frac{(6b^2n^2)\int\frac{\cos(a+b\log(cx^n))}{x^2}\,dx}{1+9b^2n^2}\\
&=-\frac{6b^2n^2\cos(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)\,x}-\frac{\cos^3(a+b\log(cx^n))}{(1+9b^2n^2)\,x}\\
&\quad+\frac{6b^3n^3\sin(a+b\log(cx^n))}{(1+10b^2n^2+9b^4n^4)\,x}+\frac{3bn\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+9b^2n^2)\,x}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.35 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.77

$$
\int\frac{\cos^3(a+b\log(cx^n))}{x^2}\,dx=
-\frac{3(1+9b^2n^2)\cos(a+b\log(cx^n))+(1+b^2n^2)\cos(3(a+b\log(cx^n)))-6bn(1+5b^2n^2+(1+b^2n^2)\cos(}{4(1+10b^2n^2+9b^4n^4)\,x}
$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] -1/4*(3*(1 + 9*b^2*n^2)*Cos[a + b*Log[c*x^n]] + (1 + b^2*n^2)*Cos[3*(a + b*
Log[c*x^n])] - 6*b*n*(1 + 5*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a + b*Log[c*x^n]
)])*Sin[a + b*Log[c*x^n]])/((1 + 10*b^2*n^2 + 9*b^4*n^4)*x)
```

Maple [A] (verified)

Time = 7.09 (sec) , antiderivative size = 235, normalized size of antiderivative = 1.49

method	result
parallelrisch	$\frac{-1+(7b^2n^2+1)\tan(\frac{a}{2}+b\ln(\sqrt{c\,x^n}))^6+6(3b^3n^3+bn)\tan(\frac{a}{2}+b\ln(\sqrt{c\,x^n}))^5+3(b^2n^2-1)\tan(\frac{a}{2}+b\ln(\sqrt{c\,x^n}))^4+12(b^3n^3-bn)}{9(b^2n^2+\frac{1}{9})(b^2n^2+1)x\left(1+\tan(\frac{a}{2}+b\,l\right.}$

```
[In] int(cos(a+b*ln(c*x^n))^3/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/9*(-1+(7*b^2*n^2+1)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^6+6*(3*b^3*n^3+b*n)*ta
n(1/2*a+b*ln((c*x^n)^(1/2)))^5+3*(b^2*n^2-1)*tan(1/2*a+b*ln((c*x^n)^(1/2)))
^4+12*(b^3*n^3-b*n)*tan(1/2*a+b*ln((c*x^n)^(1/2)))^3+3*(-b^2*n^2+1)*tan(1/2
*a+b*ln((c*x^n)^(1/2)))^2+6*(3*b^3*n^3+b*n)*tan(1/2*a+b*ln((c*x^n)^(1/2)))-
7*b^2*n^2)/(b^2*n^2+1/9)/(b^2*n^2+1)/x/(1+tan(1/2*a+b*ln((c*x^n)^(1/2)))^2)
^3
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 119, normalized size of antiderivative = 0.75

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2}\,dx = -\frac{6\,b^2n^2\cos(bn\log(x)+b\log(c)+a)+(b^2n^2+1)\cos(bn\log(x)+b\log(c)+a)^3-3\left(2\,b^3n^3+(b^3n^3+\right.}{(9\,b^4n^4+10\,b^2n^2+1)x}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3/x^2,x, algorithm="fricas")
```

```
[Out] -(6*b^2*n^2*cos(b*n*log(x) + b*log(c) + a) + (b^2*n^2 + 1)*cos(b*n*log(x) +
 b*log(c) + a)^3 - 3*(2*b^3*n^3 + (b^3*n^3 + b*n)*cos(b*n*log(x) + b*log(c)
 + a)^2)*sin(b*n*log(x) + b*log(c) + a))/((9*b^4*n^4 + 10*b^2*n^2 + 1)*x)
```

Sympy [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 21.93 (sec) , antiderivative size = 774, normalized size of antiderivative = 4.90

$$\int \frac{\cos^3(a + b\log(cx^n))}{x^2}\,dx$$

$$= \begin{cases} \frac{3i\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{8x} + \frac{3i\sin\left(3a-\frac{3i\log(cx^n)}{n}\right)}{32x} + \frac{\cos\left(3a-\frac{3i\log(cx^n)}{n}\right)}{32x} + \frac{3i\log(cx^n)\sin\left(a-\frac{i\log(cx^n)}{n}\right)}{8nx} + \frac{3\log(cx^n)\cos\left(a-\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{9i\sin\left(a-\frac{i\log(cx^n)}{3n}\right)}{32x} + \frac{i\sin\left(3a-\frac{i\log(cx^n)}{n}\right)}{8x} - \frac{27\cos\left(a-\frac{i\log(cx^n)}{3n}\right)}{32x} + \frac{i\log(cx^n)\sin\left(3a-\frac{i\log(cx^n)}{n}\right)}{8nx} + \frac{\log(cx^n)\cos\left(3a-\frac{i\log(cx^n)}{n}\right)}{8nx} \\ \frac{9i\sin\left(a+\frac{i\log(cx^n)}{3n}\right)}{32x} - \frac{27\cos\left(a+\frac{i\log(cx^n)}{3n}\right)}{32x} - \frac{\cos\left(3a+\frac{i\log(cx^n)}{n}\right)}{8x} - \frac{i\log(cx^n)\sin\left(3a+\frac{i\log(cx^n)}{n}\right)}{8nx} + \frac{\log(cx^n)\cos\left(3a+\frac{i\log(cx^n)}{n}\right)}{8nx} \\ -\frac{3i\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{8x} - \frac{3i\sin\left(3a+\frac{3i\log(cx^n)}{n}\right)}{32x} + \frac{\cos\left(3a+\frac{3i\log(cx^n)}{n}\right)}{32x} - \frac{3i\log(cx^n)\sin\left(a+\frac{i\log(cx^n)}{n}\right)}{8nx} + \frac{3\log(cx^n)\cos\left(a+\frac{i\log(cx^n)}{n}\right)}{8nx} \\ \frac{6b^3n^3\sin^3(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x} + \frac{9b^3n^3\sin(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x} - \frac{6b^2n^2\sin^2(a+b\log(cx^n))\cos(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x} - \frac{7b^2n^2\cos^3(a+b\log(cx^n))}{9b^4n^4x+10b^2n^2x+x} \end{cases}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**3/x**2,x)
```

```
[Out] Piecewise((3*I*sin(a - I*log(c*x**n)/n)/(8*x) + 3*I*sin(3*a - 3*I*log(c*x**
n)/n)/(32*x) + cos(3*a - 3*I*log(c*x**n)/n)/(32*x) + 3*I*log(c*x**n)*sin(a
- I*log(c*x**n)/n)/(8*n*x) + 3*log(c*x**n)*cos(a - I*log(c*x**n)/n)/(8*n*x)
, Eq(b, -I/n)), (-9*I*sin(a - I*log(c*x**n)/(3*n))/(32*x) + I*sin(3*a - I*l
og(c*x**n)/n)/(8*x) - 27*cos(a - I*log(c*x**n)/(3*n))/(32*x) + I*log(c*x**n
)*sin(3*a - I*log(c*x**n)/n)/(8*n*x) + log(c*x**n)*cos(3*a - I*log(c*x**n)/
n)/(8*n*x), Eq(b, -I/(3*n))), (9*I*sin(a + I*log(c*x**n)/(3*n))/(32*x) - 27
*cos(a + I*log(c*x**n)/(3*n))/(32*x) - cos(3*a + I*log(c*x**n)/n)/(8*x) - I
*log(c*x**n)*sin(3*a + I*log(c*x**n)/n)/(8*n*x) + log(c*x**n)*cos(3*a + I*l
og(c*x**n)/n)/(8*n*x), Eq(b, I/(3*n))), (-3*I*sin(a + I*log(c*x**n)/n)/(8*x
) - 3*I*sin(3*a + 3*I*log(c*x**n)/n)/(32*x) + cos(3*a + 3*I*log(c*x**n)/n)/
(32*x) - 3*I*log(c*x**n)*sin(a + I*log(c*x**n)/n)/(8*n*x) + 3*log(c*x**n)*c
os(a + I*log(c*x**n)/n)/(8*n*x), Eq(b, I/n)), (6*b**3*n**3*sin(a + b*log(c*
x**n))**3/(9*b**4*n**4*x + 10*b**2*n**2*x + x) + 9*b**3*n**3*sin(a + b*log(
c*x**n))*cos(a + b*log(c*x**n))**2/(9*b**4*n**4*x + 10*b**2*n**2*x + x) - 6
*b**2*n**2*sin(a + b*log(c*x**n))**2*cos(a + b*log(c*x**n))/(9*b**4*n**4*x
+ 10*b**2*n**2*x + x) - 7*b**2*n**2*cos(a + b*log(c*x**n))**3/(9*b**4*n**4*
x + 10*b**2*n**2*x + x) + 3*b*n*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n
))**2/(9*b**4*n**4*x + 10*b**2*n**2*x + x) - cos(a + b*log(c*x**n))**3/(9*b
**4*n**4*x + 10*b**2*n**2*x + x), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 994 vs. $2(158) = 316$.

Time = 0.26 (sec) , antiderivative size = 994, normalized size of antiderivative = 6.29

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2}\,dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^3/x^2,x, algorithm="maxima")
```

```
[Out] 1/8*((3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(3*b*
log(c)) + b^3*sin(3*b*log(c)))*n^3 - (b^2*cos(6*b*log(c))*cos(3*b*log(c)) +
 b^2*sin(6*b*log(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*n^2 + 3*(b*cos(
3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*sin(3*b
*log(c)))*n - cos(6*b*log(c))*cos(3*b*log(c)) - sin(6*b*log(c))*sin(3*b*log
(c)) - cos(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(3*b*log(c))
*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b*log(c)
)*sin(3*b*log(c)) - b^3*cos(3*b*log(c))*sin(2*b*log(c)))*n^3 - 9*(b^2*cos(4
*b*log(c))*cos(3*b*log(c)) + b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*sin(
4*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c))*sin(2*b*log(c)))*n^2 + (b
*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)) + b*co
s(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(
4*b*log(c))*cos(3*b*log(c)) - cos(3*b*log(c))*cos(2*b*log(c)) - sin(4*b*log
(c))*sin(3*b*log(c)) - sin(3*b*log(c))*sin(2*b*log(c)))*cos(b*log(x^n) + a)
 + (3*(b^3*cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*lo
g(c)) + b^3*cos(3*b*log(c)))*n^3 + (b^2*cos(3*b*log(c))*sin(6*b*log(c)) - b
^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)))*n^2 + 3*(b*cos(6*
b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b*l
og(c)))*n + cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(3*b*log(c
)) + sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + 3*(9*(b^3*cos(4*b*log(c))*c
os(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*
sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))*n^3 + 9*(b^2*cos(3*b
*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c)) + b^2*cos(2*
b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(c)))*n^2 + (b*c
os(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(
4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(3*
b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)) + cos(2*b*log(c
))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*sin(b*log(x^n) + a))/
((9*(b^4*cos(3*b*log(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 10*(b^2*cos(3*b*l
og(c))^2 + b^2*sin(3*b*log(c))^2)*n^2 + cos(3*b*log(c))^2 + sin(3*b*log(c))
^2)*x)
```

Giac [F]

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\cos(b\log(cx^n)+a)^3}{x^2}\,dx$$

[In] integrate(cos(a+b*log(c*x^n))^3/x^2,x, algorithm="giac")

[Out] integrate(cos(b*log(c*x^n) + a)^3/x^2, x)

Mupad [F(-1)]

Timed out.

$$\int \frac{\cos^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\cos(a+b\,\ln(c\,x^n))^3}{x^2}\,dx$$

[In] int(cos(a + b*log(c*x^n))^3/x^2,x)

[Out] int(cos(a + b*log(c*x^n))^3/x^2, x)

3.101 $\int \cos^4(a+b\log(cx^n))\,dx$

Optimal result 1401
Rubi [A] (verified) 1402
Mathematica [A] (verified) 1403
Maple [A] (verified) 1403
Fricas [A] (verification not implemented) 1404
Sympy [F] 1404
Maxima [B] (verification not implemented) 1405
Giac [B] (verification not implemented) 1406
Mupad [B] (verification not implemented) 1417

Optimal result

Integrand size = 13, antiderivative size = 191

$$\int \cos^4(a+b\log(cx^n))\,dx = \frac{24b^4n^4x}{1+20b^2n^2+64b^4n^4}+\frac{12b^2n^2x\cos^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4}+\frac{x\cos^4(a+b\log(cx^n))}{1+16b^2n^2}+\frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4}+\frac{4bnx\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+16b^2n^2}$$

```
[Out] 24*b^4*n^4*x/(64*b^4*n^4+20*b^2*n^2+1)+12*b^2*n^2*x*cos(a+b*ln(c*x^n))^2/(6
4*b^4*n^4+20*b^2*n^2+1)+x*cos(a+b*ln(c*x^n))^4/(16*b^2*n^2+1)+24*b^3*n^3*x*
cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/(64*b^4*n^4+20*b^2*n^2+1)+4*b*n*x*cos
(a+b*ln(c*x^n))^3*sin(a+b*ln(c*x^n))/(16*b^2*n^2+1)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 191, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.154$, Rules used = {4566, 8}

$$\int \cos^4(a+b\log(cx^n))\,dx = \frac{x\cos^4(a+b\log(cx^n))}{16b^2n^2+1} + \frac{4bnx\sin(a+b\log(cx^n))\cos^3(a+b\log(cx^n))}{16b^2n^2+1} + \frac{12b^2n^2x\cos^2(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} + \frac{24b^3n^3x\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1} + \frac{24b^4n^4x}{64b^4n^4+20b^2n^2+1}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (24*b^4*n^4*x)/(1 + 20*b^2*n^2 + 64*b^4*n^4) + (12*b^2*n^2*x*Cos[a + b*Log[
c*x^n]]^2)/(1 + 20*b^2*n^2 + 64*b^4*n^4) + (x*Cos[a + b*Log[c*x^n]]^4)/(1 +
 16*b^2*n^2) + (24*b^3*n^3*x*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(
1 + 20*b^2*n^2 + 64*b^4*n^4) + (4*b*n*x*Cos[a + b*Log[c*x^n]]^3*Sin[a + b*L
og[c*x^n]])/(1 + 16*b^2*n^2)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 4566

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_), x_Symbol] :> Sim
p[x*(Cos[d*(a + b*Log[c*x^n])]^p/(b^2*d^2*n^2*p^2 + 1)), x] + (Dist[b^2*d^2
*n^2*p*((p - 1)/(b^2*d^2*n^2*p^2 + 1)), Int[Cos[d*(a + b*Log[c*x^n])]^(p -
2), x], x] + Simp[b*d*n*p*x*Cos[d*(a + b*Log[c*x^n])]^(p - 1)*(Sin[d*(a + b
*Log[c*x^n])]/(b^2*d^2*n^2*p^2 + 1)), x]) /; FreeQ[{a, b, c, d, n}, x] && I
GtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + 1, 0]
```

Rubi steps

$$\text{integral} = \frac{x\cos^4(a+b\log(cx^n))}{1+16b^2n^2} + \frac{4bnx\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+16b^2n^2} + \frac{(12b^2n^2)\int\cos^2(a+b\log(cx^n))\,dx}{1+16b^2n^2}$$

$$
\begin{aligned}
&= \frac{12b^2n^2x\cos^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} + \frac{x\cos^4(a+b\log(cx^n))}{1+16b^2n^2} \\
&\quad + \frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} \\
&\quad + \frac{4bnx\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+16b^2n^2} + \frac{(24b^4n^4)\int 1\,dx}{1+20b^2n^2+64b^4n^4} \\
&= \frac{24b^4n^4x}{1+20b^2n^2+64b^4n^4} + \frac{12b^2n^2x\cos^2(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} \\
&\quad + \frac{x\cos^4(a+b\log(cx^n))}{1+16b^2n^2} + \frac{24b^3n^3x\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+20b^2n^2+64b^4n^4} \\
&\quad + \frac{4bnx\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{1+16b^2n^2}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.39 (sec) , antiderivative size = 167, normalized size of antiderivative = 0.87

$$
\int \cos^4(a+b\log(cx^n))\,dx = \frac{x(3+60b^2n^2+192b^4n^4+(4+64b^2n^2)\cos(2(a+b\log(cx^n)))+(1+4b^2n^2)\cos(4(a+b\log(cx^n)))+8b}{8(1}
$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x*(3 + 60*b^2*n^2 + 192*b^4*n^4 + (4 + 64*b^2*n^2)*Cos[2*(a + b*Log[c*x^n]
)] + (1 + 4*b^2*n^2)*Cos[4*(a + b*Log[c*x^n])] + 8*b*n*Sin[2*(a + b*Log[c*x
^n])] + 128*b^3*n^3*Sin[2*(a + b*Log[c*x^n])] + 4*b*n*Sin[4*(a + b*Log[c*x^
n])] + 16*b^3*n^3*Sin[4*(a + b*Log[c*x^n])]))/(8*(1 + 20*b^2*n^2 + 64*b^4*n
^4))
```

Maple [A] (verified)

Time = 7.80 (sec) , antiderivative size = 131, normalized size of antiderivative = 0.69

method	result
parallelrisch	$\frac{128\left(\left(\frac{1}{8}b^3n^3+\frac{1}{32}bn\right)\sin(4b\ln(c\,x^n)+4a)+\left(\frac{b^2n^2}{32}+\frac{1}{128}\right)\cos(4b\ln(c\,x^n)+4a)+\left(\frac{3b^2n^2}{2}+bn\sin(2b\ln(c\,x^n)+2a)+\frac{\cos(2b\ln(c\,x^n)-}{2}\right.\right.}{512b^4n^4+160b^2n^2+8}$
default	$\frac{3x}{8}+\frac{\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(2b\ln(c\,x^n)+2a)}{2n^2\left(\frac{1}{n^2}+4b^2\right)}+\frac{b\,\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\sin(2b\ln(c\,x^n)+2a)}{n\left(\frac{1}{n^2}+4b^2\right)}+\frac{\mathrm{e}^{\frac{\ln(c\,x^n)}{n}-\frac{\ln(c)}{n}}\cos(4b\ln(c\,x^n)+4a)}{8n^2\left(\frac{1}{n^2}+16b^2\right)}$

```
[In] int(cos(a+b*ln(c*x^n))^4,x,method=_RETURNVERBOSE)
```

[Out] 128*((1/8*b^3*n^3+1/32*b*n)*sin(4*b*ln(c*x^n)+4*a)+(1/32*b^2*n^2+1/128)*cos
(4*b*ln(c*x^n)+4*a)+(3/2*b^2*n^2+b*n*sin(2*b*ln(c*x^n)+2*a)+1/2*cos(2*b*ln(
c*x^n)+2*a)+3/8)*(b^2*n^2+1/16))*x/(512*b^4*n^4+160*b^2*n^2+8)

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 144, normalized size of antiderivative = 0.75

$$\int \cos^4(a+b\log(cx^n))\,dx = \frac{24\,b^4n^4x+12\,b^2n^2x\cos(bn\log(x)+b\log(c)+a)^2+(4\,b^2n^2+1)x\cos(bn\log(x)+b\log(c)+a)^4+4\,(6\,b^3}{64\,b^4n^4}$$

[In] integrate(cos(a+b*log(c*x^n))^4,x, algorithm="fricas")

[Out] (24*b^4*n^4*x + 12*b^2*n^2*x*cos(b*n*log(x) + b*log(c) + a)^2 + (4*b^2*n^2
+ 1)*x*cos(b*n*log(x) + b*log(c) + a)^4 + 4*(6*b^3*n^3*x*cos(b*n*log(x) + b
*log(c) + a) + (4*b^3*n^3 + b*n)*x*cos(b*n*log(x) + b*log(c) + a)^3)*sin(b*
n*log(x) + b*log(c) + a))/(64*b^4*n^4 + 20*b^2*n^2 + 1)

Sympy [F]

$$\int \cos^4(a+b\log(cx^n))\,dx = \begin{cases} \int \cos^4\left(a-\frac{i\log(cx^n)}{2n}\right)dx \\ \int \cos^4\left(a-\frac{i\log(cx^n)}{4n}\right)dx \\ \int \cos^4\left(a+\frac{i\log(cx^n)}{4n}\right)dx \\ \int \cos^4\left(a+\frac{i\log(cx^n)}{2n}\right)dx \\ \frac{24b^4n^4x\sin^4(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1}+\frac{48b^4n^4x\sin^2(a+b\log(cx^n))\cos^2(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1}+\frac{24b^4n^4x\cos^4(a+b\log(cx^n))}{64b^4n^4+20b^2n^2+1}+\frac{24b^3n^3x\sin^3(a+b\log(}{64b^4n^4+} \end{cases}$$

[In] integrate(cos(a+b*ln(c*x**n))**4,x)

[Out] Piecewise((Integral(cos(a - I*log(c*x**n)/(2*n))**4, x), Eq(b, -I/(2*n))),
(Integral(cos(a - I*log(c*x**n)/(4*n))**4, x), Eq(b, -I/(4*n))), (Integral(
cos(a + I*log(c*x**n)/(4*n))**4, x), Eq(b, I/(4*n))), (Integral(cos(a + I*l
og(c*x**n)/(2*n))**4, x), Eq(b, I/(2*n))), (24*b**4*n**4*x*sin(a + b*log(c*
x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 48*b**4*n**4*x*sin(a + b*log(
c*x**n))**2*cos(a + b*log(c*x**n))**2/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 2

```
4*b**4*n**4*x*cos(a + b*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 + 1) +
 24*b**3*n**3*x*sin(a + b*log(c*x**n))**3*cos(a + b*log(c*x**n))/(64*b**4*n
**4 + 20*b**2*n**2 + 1) + 40*b**3*n**3*x*sin(a + b*log(c*x**n))*cos(a + b*l
og(c*x**n))**3/(64*b**4*n**4 + 20*b**2*n**2 + 1) + 12*b**2*n**2*x*sin(a + b
*log(c*x**n))**2*cos(a + b*log(c*x**n))**2/(64*b**4*n**4 + 20*b**2*n**2 + 1
) + 16*b**2*n**2*x*cos(a + b*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2*n**2 +
 1) + 4*b*n*x*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))**3/(64*b**4*n**
4 + 20*b**2*n**2 + 1) + x*cos(a + b*log(c*x**n))**4/(64*b**4*n**4 + 20*b**2
*n**2 + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1078 vs. 2(191) = 382.

Time = 0.27 (sec) , antiderivative size = 1078, normalized size of antiderivative = 5.64

$$\int \cos^4(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^4,x, algorithm="maxima")
```

```
[Out] 1/16*((16*(b^3*cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*
b*log(c)) + b^3*sin(4*b*log(c)))*n^3 + 4*(b^2*cos(8*b*log(c))*cos(4*b*log(c
)) + b^2*sin(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*n^2 + 4*(b*
cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin
(4*b*log(c)))*n + cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b
*log(c)) + cos(4*b*log(c)))*x*cos(4*b*log(x^n) + 4*a) + 4*(32*(b^3*cos(4*b*
log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b
*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3 + 16*(b
^2*cos(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) +
b^2*sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*
n^2 + 2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(
c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c))
)*n + cos(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + s
in(6*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b
*log(x^n) + 2*a) + (16*(b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*l
og(c))*sin(4*b*log(c)) + b^3*cos(4*b*log(c)))*n^3 - 4*(b^2*cos(4*b*log(c))*
sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))
)*n^2 + 4*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*lo
g(c)) + b*cos(4*b*log(c)))*n - cos(4*b*log(c))*sin(8*b*log(c)) + cos(8*b*lo
g(c))*sin(4*b*log(c)) - sin(4*b*log(c)))*x*sin(4*b*log(x^n) + 4*a) + 4*(32*
(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c))
+ b^3*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c))
)*n^3 - 16*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4
*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(
2*b*log(c)))*n^2 + 2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*log(c))
```

```
*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c))*si
n(2*b*log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*
b*log(c)) - cos(2*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(2*b*log(c
)))*x*sin(2*b*log(x^n) + 2*a) + 6*(64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*
log(c))^2)*n^4 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2 + c
os(4*b*log(c))^2 + sin(4*b*log(c))^2)*x)/(64*(b^4*cos(4*b*log(c))^2 + b^4*s
in(4*b*log(c))^2)*n^4 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*
n^2 + cos(4*b*log(c))^2 + sin(4*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 16422 vs. $2(191) = 382$.

Time = 0.76 (sec) , antiderivative size = 16422, normalized size of antiderivative = 85.98

$$\int \cos^4(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(cos(a+b*log(c*x^n))^4,x, algorithm="giac")
```

```
[Out] 3/8*x - 1/16*(256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*
x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*
tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan
(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
```

) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*ta
n(a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(2*a) + 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a) - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*n^3*x*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 256*b
^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 25
6*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 2
56*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 32*b^3*n^3*x*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 3
2*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)*tan(a)^2 - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b
^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(

a)^2 + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n
^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64
*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2 + 256*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 +
16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 6
4*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a)^2 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c))) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))

 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2 + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*
b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)*tan(2*a)^2 + 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 256*b^3
*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 256*b^3*n^3
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 256*
b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a
) + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2*tan(a) - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 32*b^3
*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 +
 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 8*b*n*x*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(
a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)*tan(a)^2 + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b

```
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 8*b*n*x*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 +
 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64
*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^2*
n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 16*
b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a) + 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a) - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n
^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
- 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(2*a)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 256*b
^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*
b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 25
6*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)
^2*tan(a) + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*
x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi
```

*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 32*b^3*n^3*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 32*b^3*n^3*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 256*b^3*n^3*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 256*b^3*n^3*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*

sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) -
16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2*tan(a) + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*n*x*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b*n*x*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)*tan(a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*n*x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*
a)^2*tan(a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2
+ 4*b^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b
^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2 + 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*b^2*n^
2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2 - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 16*b^2*n^2*x*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
*tan(2*a) + 16*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2

*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 4*b^2*n^2*x*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 64*b^2*n^2
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 64*b^2*n^2*
x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + 4*b^2*n^2*x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 - x*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4
*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - x*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 25
6*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 4*b
^2*n^2*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 +
 64*b^2*n^2*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 64
*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 4*b^
2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 +
 x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + x*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*x*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)
^2 + 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)*tan(a)^2 - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - x
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + x*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2*tan(a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*

n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2*tan(a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*b*n*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 16*b*n*x*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2 + 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a
) + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 8*b*n*x*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a) - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 8*b*n*x*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(2*a)^2 + 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(2*a)^2 - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 16*b*n*x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)
+ 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)
^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 16*b*n*x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2
+ 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a)^2 - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 - 4*b^2*n^2*x*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 64*b^2*n^2*x*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b) - 64*b^2*n^2*x*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b) - 4*b^2*n^2*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b) + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a

bs(c)))^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*
x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*x*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(2*a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*x*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + x*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + x*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a)^2 + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(a) + 16*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(a) + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a
)^2*tan(a) + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*x*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a
)^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 -
 x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*x*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*t
an(2*a)*tan(a)^2 + 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + x*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*e

^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + x*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 -
8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c))) - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 16*b*n*x*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c))) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c))) - 8*b*n*x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 8*b*n*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) - 16*b*n*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(a) - 16*b*n*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(a) + x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 - x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(2*a) + 4*x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + x*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 4*x*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 4*x*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*a)^2 + x*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*a)^2 + 16*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a
) - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 4*
x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 4*x*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - x*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - x*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b) - 4*x*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b) - 4*x*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - x*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b))/(64*b^4*n^4*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 +
64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 +
64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64
*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b

```
*log(abs(c)))^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64
*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(2*a)^2*tan(
a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2 + 64*b^4*n^4*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(
a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4 + 20*b^2*n^2*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*n
^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*n^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*t
an(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 20*b^2*n^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*n^2*tan(2*a)^2 + tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 20*b^2*n^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2 + tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a)^2 + tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2
*a)^2 + tan(a)^2 + 1)
```

Mupad [B] (verification not implemented)

Time = 27.22 (sec) , antiderivative size = 116, normalized size of antiderivative = 0.61

$$\int \cos^4\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{3\,x}{8}+\frac{x\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{8\,b\,n+4\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{4+b\,n\,8\mathrm{i}}+\frac{x\,\mathrm{e}^{-a\,4\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}\,1\mathrm{i}}{64\,b\,n+16\mathrm{i}}+\frac{x\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}}{16+b\,n\,64\mathrm{i}}$$

```
[In] int(cos(a + b*log(c*x^n))^4,x)
```

```
[Out] (3*x)/8 + (x*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(8*b*n + 4i) + (x*exp(a*2i)*(c*x
^n)^(b*2i))/(b*n*8i + 4) + (x*exp(-a*4i)/(c*x^n)^(b*4i)*1i)/(64*b*n + 16i)
+ (x*exp(a*4i)*(c*x^n)^(b*4i))/(b*n*64i + 16)
```

3.102 $\int \frac{\cos^4(a+b\log(cx^n))}{x} dx$

Optimal result . . . 1419
Rubi [A] (verified) . . . 1419
Mathematica [A] (verified) . . . 1420
Maple [A] (verified) . . . 1421
Fricas [A] (verification not implemented) . . . 1421
Sympy [A] (verification not implemented) . . . 1421
Maxima [A] (verification not implemented) . . . 1422
Giac [F] . . . 1422
Mupad [B] (verification not implemented) . . . 1422

Optimal result

Integrand size = 17, antiderivative size = 73

$$\int \frac{\cos^4(a+b\log(cx^n))}{x} dx = \frac{3\log(x)}{8} + \frac{3\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{8bn} + \frac{\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{4bn}$$

```
[Out] 3/8*ln(x)+3/8*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/b/n+1/4*cos(a+b*ln(c*x^
n))^3*sin(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 73, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used = {2715, 8}

$$\int \frac{\cos^4(a+b\log(cx^n))}{x} dx = \frac{\sin(a+b\log(cx^n))\cos^3(a+b\log(cx^n))}{4bn} + \frac{3\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{8bn} + \frac{3\log(x)}{8}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^4/x,x]
```

```
[Out] (3*Log[x])/8 + (3*Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/(8*b*n) + (C
os[a + b*Log[c*x^n]]^3*Sin[a + b*Log[c*x^n]])/(4*b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \cos^4(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= \frac{\cos^3\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{3\text{Subst}\left(\int \cos^2(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{4n} \\
&= \frac{3\cos\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{8bn} \\
&\quad + \frac{\cos^3\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{3\text{Subst}\left(\int 1\,dx, x, \log\left(cx^n\right)\right)}{8n} \\
&= \frac{3\log(x)}{8} + \frac{3\cos\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{8bn} \\
&\quad + \frac{\cos^3\left(a+b\log\left(cx^n\right)\right)\sin\left(a+b\log\left(cx^n\right)\right)}{4bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.70

$$\int \frac{\cos^4\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = \frac{12(a+b\log\left(cx^n\right)) + 8\sin\left(2(a+b\log\left(cx^n\right))\right) + \sin\left(4(a+b\log\left(cx^n\right))\right)}{32bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^4/x,x]
[Out] (12*(a + b*Log[c*x^n]) + 8*Sin[2*(a + b*Log[c*x^n])] + Sin[4*(a + b*Log[c*x
^n])])/(32*b*n)
```

Maple [A] (verified)

Time = 12.88 (sec) , antiderivative size = 46, normalized size of antiderivative = 0.63

method	result	size
parallelrisch	$\frac{12\ln(x)bn+\sin(4b\ln(c\,x^{n})+4a)+8\sin(2b\ln(c\,x^{n})+2a)}{32bn}$	46
derivativedivides	$\frac{\frac{\left(\cos(a+b\ln(c\,x^{n}))^{3}+\frac{3\cos(a+b\ln(c\,x^{n}))}{2}\right)\sin(a+b\ln(c\,x^{n}))}{4}+\frac{3b\ln(c\,x^{n})}{8}+\frac{3a}{8}}{nb}$	61
default	$\frac{\frac{\left(\cos(a+b\ln(c\,x^{n}))^{3}+\frac{3\cos(a+b\ln(c\,x^{n}))}{2}\right)\sin(a+b\ln(c\,x^{n}))}{4}+\frac{3b\ln(c\,x^{n})}{8}+\frac{3a}{8}}{nb}$	61

```
[In] int(cos(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)
[Out] 1/32*(12*ln(x)*b*n+sin(4*b*ln(c*x^n)+4*a)+8*sin(2*b*ln(c*x^n)+2*a))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.81

$$\int \frac{\cos^4(a+b\log(cx^n))}{x}\,dx = \frac{3\,bn\log(x) + \left(2\,\cos(bn\log(x)+b\log(c)+a)^3 + 3\,\cos(bn\log(x)+b\log(c)+a)\right)\sin(bn\log(x)+b\log}{8\,bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))^4/x,x, algorithm="fricas")
[Out] 1/8*(3*b*n*log(x) + (2*cos(b*n*log(x) + b*log(c) + a)^3 + 3*cos(b*n*log(x)
+ b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 7.54 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.37

$$\int \frac{\cos^4(a+b\log(cx^n))}{x}\,dx = \frac{\begin{cases}\log(x)\cos(2a) & \text{for}\ b=0\wedge(b=0\vee n=0)\\ \log(x)\cos(2a+2b\log(c)) & \text{for}\ n=0\\ \frac{\sin(2a+2b\log(cx^n))}{2bn} & \text{otherwise}\end{cases}}{2} + \frac{\begin{cases}\log(x)\cos(4a) & \text{for}\ b=0\wedge(b=0\vee n=0)\\ \log(x)\cos(4a+4b\log(c)) & \text{for}\ n=0\\ \frac{\sin(4a+4b\log(cx^n))}{4bn} & \text{otherwise}\end{cases}}{8} + \frac{3\log(x)}{8}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**4/x,x)
```

```
[Out] Piecewise((log(x)*cos(2*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cos(
2*a + 2*b*log(c)), Eq(n, 0)), (sin(2*a + 2*b*log(c*x**n))/(2*b*n), True))/2
 + Piecewise((log(x)*cos(4*a), Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*c
os(4*a + 4*b*log(c)), Eq(n, 0)), (sin(4*a + 4*b*log(c*x**n))/(4*b*n), True)
)/8 + 3*log(x)/8
```

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 93, normalized size of antiderivative = 1.27

$$\int \frac{\cos^4(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{12\,bn\log(x) + \cos(4\,b\log(x^n) + 4\,a)\sin(4\,b\log(c)) + 8\,\cos(2\,b\log(x^n) + 2\,a)\sin(2\,b\log(c)) + \cos(4\,b\log}{32\,bn}$$

```
[In] integrate(cos(a+b*log(c*x^n))^4/x,x, algorithm="maxima")
```

```
[Out] 1/32*(12*b*n*log(x) + cos(4*b*log(x^n) + 4*a)*sin(4*b*log(c)) + 8*cos(2*b*l
og(x^n) + 2*a)*sin(2*b*log(c)) + cos(4*b*log(c))*sin(4*b*log(x^n) + 4*a) +
8*cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(b*n)
```

Giac [F]

$$\int \frac{\cos^4(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^4}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^4/x,x, algorithm="giac")
```

```
[Out] integrate(cos(b*log(c*x^n) + a)^4/x, x)
```

Mupad [B] (verification not implemented)

Time = 27.00 (sec) , antiderivative size = 50, normalized size of antiderivative = 0.68

$$\int \frac{\cos^4(a+b\log(cx^n))}{x}\,dx = \frac{3\,\ln(x^n)}{8\,n} + \frac{\frac{\sin(2\,a+2\,b\,\ln(c\,x^n))}{4} + \frac{\sin(4\,a+4\,b\,\ln(c\,x^n))}{32}}{b\,n}$$

```
[In] int(cos(a + b*log(c*x^n))^4/x,x)
```

```
[Out] (3*log(x^n))/(8*n) + (sin(2*a + 2*b*log(c*x^n))/4 + sin(4*a + 4*b*log(c*x^n
))/32)/(b*n)
```

3.103 $\int \cos(\log(6+3x))\,dx$

Optimal result 1423
Rubi [A] (verified) 1423
Mathematica [A] (verified) 1424
Maple [A] (verified) 1424
Fricas [A] (verification not implemented) 1424
Sympy [F] 1425
Maxima [A] (verification not implemented) 1425
Giac [A] (verification not implemented) 1425
Mupad [B] (verification not implemented) 1425

Optimal result

Integrand size = 7, antiderivative size = 29

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}(2+x)\cos(\log(3(2+x))) + \frac{1}{2}(2+x)\sin(\log(3(2+x)))$$

```
[Out] 1/2*(2+x)*cos(ln(6+3*x))+1/2*(2+x)*sin(ln(6+3*x))
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4564}

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}(x+2)\sin(\log(3(x+2))) + \frac{1}{2}(x+2)\cos(\log(3(x+2)))$$

```
[In] Int[Cos[Log[6 + 3*x]],x]
[Out] ((2 + x)*Cos[Log[3*(2 + x)]])/2 + ((2 + x)*Sin[Log[3*(2 + x)]])/2
```

Rule 4564

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)], x_Symbol] :> Simp[x*(
Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] + Simp[b*d*n*x*(Sin[d*(a +
 b*Log[c*x^n])]/(b^2*d^2*n^2 + 1)), x] /; FreeQ[{a, b, c, d, n}, x] && NeQ[
b^2*d^2*n^2 + 1, 0]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{1}{3}\text{Subst}\left(\int \cos(\log(x))\,dx, x, 6+3x\right) \\ &= \frac{1}{2}(2+x)\cos(\log(3(2+x))) + \frac{1}{2}(2+x)\sin(\log(3(2+x))) \end{aligned}$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 22, normalized size of antiderivative = 0.76

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}(2+x)(\cos(\log(3(2+x)))+\sin(\log(3(2+x))))$$

[In] Integrate[Cos[Log[6 + 3*x]],x]

[Out] ((2 + x)*(Cos[Log[3*(2 + x)]] + Sin[Log[3*(2 + x)]]))/2

Maple [A] (verified)

Time = 0.81 (sec) , antiderivative size = 30, normalized size of antiderivative = 1.03

method	result	size
default	$\frac{\cos(\ln(6+3x))(6+3x)}{6}+\frac{(6+3x)\sin(\ln(6+3x))}{6}$	30
risch	$\left(\frac{1}{4}-\frac{i}{4}\right)(2+x)(6+3x)^{i}+\left(\frac{1}{4}+\frac{i}{4}\right)(2+x)(6+3x)^{-i}$	34
parallelrisch	$\frac{2x\tan\left(\ln\left(\sqrt{6+3x}\right)\right)-\tan\left(\ln\left(\sqrt{6+3x}\right)\right)^{2}x+2\tan\left(\ln\left(\sqrt{6+3x}\right)\right)^{2}+4\tan\left(\ln\left(\sqrt{6+3x}\right)\right)+x+6}{2\tan\left(\ln\left(\sqrt{6+3x}\right)\right)^{2}+2}$	72

[In] int(cos(ln(6+3*x)),x,method=_RETURNVERBOSE)

[Out] 1/6*cos(ln(6+3*x))*(6+3*x)+1/6*(6+3*x)*sin(ln(6+3*x))

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 25, normalized size of antiderivative = 0.86

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}\,(x+2)\cos\left(\log\left(3\,x+6\right)\right)+\frac{1}{2}\,(x+2)\sin\left(\log\left(3\,x+6\right)\right)$$

[In] integrate(cos(log(6+3*x)),x, algorithm="fricas")

[Out] 1/2*(x + 2)*cos(log(3*x + 6)) + 1/2*(x + 2)*sin(log(3*x + 6))

Sympy [F]

$$\int \cos(\log(6+3x))\,dx = \int \cos\left(\log\left(3x+6\right)\right)dx$$

```
[In] integrate(cos(ln(6+3*x)),x)
[Out] Integral(cos(log(3*x + 6)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.20 (sec) , antiderivative size = 20, normalized size of antiderivative = 0.69

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}\,(x+2)(\cos\left(\log\left(3\,x+6\right)\right)+\sin\left(\log\left(3\,x+6\right)\right))$$

```
[In] integrate(cos(log(6+3*x)),x, algorithm="maxima")
[Out] 1/2*(x + 2)*(cos(log(3*x + 6)) + sin(log(3*x + 6)))
```

Giac [A] (verification not implemented)

none

Time = 0.29 (sec) , antiderivative size = 25, normalized size of antiderivative = 0.86

$$\int \cos(\log(6+3x))\,dx = \frac{1}{2}\,(x+2)\cos\left(\log\left(3\,x+6\right)\right)+\frac{1}{2}\,(x+2)\sin\left(\log\left(3\,x+6\right)\right)$$

```
[In] integrate(cos(log(6+3*x)),x, algorithm="giac")
[Out] 1/2*(x + 2)*cos(log(3*x + 6)) + 1/2*(x + 2)*sin(log(3*x + 6))
```

Mupad [B] (verification not implemented)

Time = 25.67 (sec) , antiderivative size = 21, normalized size of antiderivative = 0.72

$$\int \cos(\log(6+3x))\,dx = \frac{\sqrt{2}\,\sin\left(\frac{\pi}{4}+\ln\left(3\,x+6\right)\right)\,\left(3\,x+6\right)}{6}$$

```
[In] int(cos(log(3*x + 6)),x)
[Out] (2^(1/2)*sin(pi/4 + log(3*x + 6))*(3*x + 6))/6
```

3.104 $\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 1426
Rubi [A] (verified) 1426
Mathematica [F] 1427
Maple [F] 1428
Fricas [C] (verification not implemented) 1428
Sympy [F] 1428
Maxima [A] (verification not implemented) 1429
Giac [C] (verification not implemented) 1429
Mupad [B] (verification not implemented) 1430

Optimal result

Integrand size = 28, antiderivative size = 101

$$\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}\,n}}x^{1+m}\left(cx^n\right)^{\frac{1+m}{n}}}{4(1+m)}+\frac{1}{2}e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}\,n}{1+m}}x^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\log(x)$$

```
[Out] 1/4*exp(a*(1+m)/n/(-(1+m)^2/n^2)^(1/2))*x^(1+m)*(c*x^n)^((1+m)/n)/(1+m)+1/2
*exp(a*n*(-(1+m)^2/n^2)^(1/2)/(1+m))*x^(1+m)*ln(x)/((c*x^n)^((1+m)/n))
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 101, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.071, Rules used = {4582, 4578}

$$\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x^{m+1}e^{\frac{a(m+1)}{n\sqrt{-\frac{(m+1)^2}{n^2}}}}\left(cx^n\right)^{\frac{m+1}{n}}}{4(m+1)}+\frac{1}{2}x^{m+1}\log(x)e^{\frac{an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}\left(cx^n\right)^{-\frac{m+1}{n}}$$

```
[In] Int[x^m*Cos[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]],x]
```

```
[Out] (E^((a*(1 + m))/(Sqrt[-((1 + m)^2/n^2)]*n))*x^(1 + m)*(c*x^n)^((1 + m)/n))/
(4*(1 + m)) + (E^((a*Sqrt[-((1 + m)^2/n^2)]*n)/(1 + m))*x^(1 + m)*Log[x])/(
2*(c*x^n)^((1 + m)/n))
```

Rule 4578

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[1/2^p, Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^2*(p/(m + 1)))/x^((m +
 1)/p) + x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x], x], x] /; FreeQ[{a,
b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m + 1)^2, 0]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log(x)\right)dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}}{x}+e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}n}}x^{-1+\frac{2(1+m)}{n}}\right)dx,x,cx^n\right)}{2n}\\
&= \frac{e^{\frac{a(1+m)}{\sqrt{-\frac{(1+m)^2}{n^2}}n}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{4(1+m)}+\frac{1}{2}e^{\frac{a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)
\end{aligned}$$

Mathematica [F]

$$\int x^m\cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx=\int x^m\cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)dx$$

```
[In] Integrate[x^m*Cos[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]],x]
[Out] Integrate[x^m*Cos[a + Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n]], x]
```

Maple [F]

$$\int x^m \cos\left(a+\ln\left(c\,x^n\right)\sqrt{-\frac{(1+m)^2}{n^2}}\right)dx$$

```
[In] int(x^m*cos(a+ln(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x)
[Out] int(x^m*cos(a+ln(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 60, normalized size of antiderivative = 0.59

$$\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{\left(x^2x^{2\,m}+2\,(m+1)e^{\left(\frac{2\,(i\,an-(m+1)\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-(m+1)\log(c)}{n}\right)}}{4\,(m+1)}$$

```
[In] integrate(x^m*cos(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="fricas")
[Out] 1/4*(x^2*x^(2*m) + 2*(m + 1)*e^(2*(I*a*n - (m + 1)*log(c))/n)*log(x))*e^(-(
I*a*n - (m + 1)*log(c))/n)/(m + 1)
```

Sympy [F]

$$\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \int x^m \cos\left(a+\sqrt{-\frac{m^2}{n^2}-\frac{2m}{n^2}-\frac{1}{n^2}}\log\left(cx^n\right)\right)dx$$

```
[In] integrate(x**m*cos(a+ln(c*x**n)*(-(1+m)**2/n**2)**(1/2)),x)
[Out] Integral(x**m*cos(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.81

$$\int x^m \cos\left(a + \sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right) dx = \frac{c^{\frac{2m}{n}+\frac{2}{n}} x \cos(a) e^{\left(m\log(x)+\frac{m\log(x^n)}{n}+\frac{\log(x^n)}{n}\right)} + 2\,(m\cos(a)+\cos(a))\log(x)}{4\left(c^{\frac{m}{n}+\frac{1}{n}}m + c^{\frac{m}{n}+\frac{1}{n}}\right)}$$

```
[In] integrate(x^m*cos(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="maxima")
```

```
[Out] 1/4*(c^(2*m/n + 2/n)*x*cos(a)*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n) + 2*
(m*cos(a) + cos(a))*log(x))/(c^(m/n + 1/n)*m + c^(m/n + 1/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 1.18 (sec) , antiderivative size = 267, normalized size of antiderivative = 2.64

$$\int x^m \cos\left(a + \sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right) dx = \frac{mn^2xx^m e^{\left(ia - \frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)} + mn^2xx^m e^{\left(-ia + \frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)} + n^2xx^m e^{\left(ia - \frac{n|mn+n|\log(x)+|m}{n^2}\right.}}{2}$$

```
[In] integrate(x^m*cos(a+log(c*x^n)*(-(1+m)^2/n^2)^(1/2)),x, algorithm="giac")
```

```
[Out] 1/2*(m*n^2*x*x^m*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2
) + m*n^2*x*x^m*e^(-I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2
) + n^2*x*x^m*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) +
 n*x*x^m*abs(m*n + n)*e^(I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c)
)/n^2) + n^2*x*x^m*e^(-I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/
n^2) - n*x*x^m*abs(m*n + n)*e^(-I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)
*log(c))/n^2))/(m^2*n^2 + 2*m*n^2 - (m*n + n)^2 + n^2)
```

Mupad [B] (verification not implemented)

Time = 28.33 (sec) , antiderivative size = 131, normalized size of antiderivative = 1.30

$$\int x^m \cos\left(a+\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}}{2\,m+2-n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,2\mathrm{i}} + \frac{x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}{2\,m+2+n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,2\mathrm{i}}$$

```
[In] int(x^m*cos(a + log(c*x^n)*(-(m + 1)^2/n^2)^(1/2)),x)
```

```
[Out] (x*x^m*exp(-a*1i)/(c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i))/(2*m
- n*(-(m + 1)^2/n^2)^(1/2)*2i + 2) + (x*x^m*exp(a*1i)*(c*x^n)^((- (2*m)/n^2
 - 1/n^2 - m^2/n^2)^(1/2)*1i))/(2*m + n*(-(m + 1)^2/n^2)^(1/2)*2i + 2)
```

3.105 $\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 1431
Rubi [A] (verified) 1431
Mathematica [F] 1432
Maple [F] 1432
Fricas [C] (verification not implemented) 1433
Sympy [F] 1433
Maxima [A] (verification not implemented) 1433
Giac [A] (verification not implemented) 1433
Mupad [B] (verification not implemented) 1434

Optimal result

Integrand size = 19, antiderivative size = 62

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{1}{4}e^{-a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

```
[Out] 1/4*x*(c*x^n)^(1/n)/exp(a*n*(-1/n^2)^(1/2))+1/2*exp(a*n*(-1/n^2)^(1/2))*x*l
n(x)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 62, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {4572, 4578}

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{1}{4}xe^{-a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}}+\frac{1}{2}xe^{a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}$$

```
[In] Int[Cos[a + Sqrt[-n^(-2)]*Log[c*x^n]],x]
```

```
[Out] (x*(c*x^n)^n^(-1))/(4*E^(a*Sqrt[-n^(-2)]*n)) + (E^(a*Sqrt[-n^(-2)]*n)*x*Log
[x])/(2*(c*x^n)^n^(-1))
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4578

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[1/2^p, Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^2*(p/(m + 1)))/x^((m +
 1)/p) + x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x], x], x] /; FreeQ[{a,
b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos\left(a+\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{a\sqrt{-\frac{1}{n^2}}n}}{x}+e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}\right)\,dx, x, cx^n\right)}{2n}$$

$$= \frac{1}{4}e^{-a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{2}e^{a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

Mathematica [F]

$$\int\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \int\cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] Integrate[Cos[a + Sqrt[-n^(-2)]*Log[c*x^n]],x]
[Out] Integrate[Cos[a + Sqrt[-n^(-2)]*Log[c*x^n]], x]
```

Maple [F]

$$\int\cos\left(a+\ln\left(c\,x^n\right)\sqrt{-\frac{1}{n^2}}\right)dx$$

```
[In] int(cos(a+ln(c*x^n)*(-1/n^2)^(1/2)),x)
[Out] int(cos(a+ln(c*x^n)*(-1/n^2)^(1/2)),x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.65

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{1}{4}\left(x^2+2\,e^{\left(\frac{2\,(i\,an-\log(c))}{n}\right)}\log\left(x\right)\right)e^{\left(-\frac{i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(cos(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="fricas")
[Out] 1/4*(x^2 + 2*e^(2*(I*a*n - log(c))/n)*log(x))*e^(-(I*a*n - log(c))/n)
```

Sympy [F]

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$

```
[In] integrate(cos(a+ln(c*x**n)*(-1/n**2)**(1/2)),x)
[Out] Integral(cos(a + sqrt(-1/n**2)*log(c*x**n)), x)
```

Maxima [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 29, normalized size of antiderivative = 0.47

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{c^{\frac{2}{n}}x^2\cos\left(a\right)+2\,\cos\left(a\right)\log\left(x\right)}{4\,c^{\left(\frac{1}{n}\right)}}$$

```
[In] integrate(cos(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="maxima")
[Out] 1/4*(c^(2/n)*x^2*cos(a) + 2*cos(a)*log(x))/c^(1/n)
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.02

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = +\infty$$

```
[In] integrate(cos(a+log(c*x^n)*(-1/n^2)^(1/2)),x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 28.80 (sec) , antiderivative size = 83, normalized size of antiderivative = 1.34

$$\int \cos\left(a+\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}\,1\mathrm{i}}{2\,n\,\sqrt{-\frac{1}{n^2}}+2\mathrm{i}}-\frac{x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}\,1\mathrm{i}}{2\,n\,\sqrt{-\frac{1}{n^2}}-2\mathrm{i}}$$

```
[In] int(cos(a + log(c*x^n)*(-1/n^2)^(1/2)),x)
```

```
[Out] (x*exp(-a*1i)/(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(2*n*(-1/n^2)^(1/2) + 2i) - (
x*exp(a*1i)*(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(2*n*(-1/n^2)^(1/2) - 2i)
```

3.106 $\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$

Optimal result 1435
Rubi [A] (verified) 1435
Mathematica [F] 1436
Maple [F] 1437
Fricas [C] (verification not implemented) 1437
Sympy [F] 1437
Maxima [A] (verification not implemented) 1438
Giac [C] (verification not implemented) 1438
Mupad [B] (verification not implemented) 1439

Optimal result

Integrand size = 33, antiderivative size = 117

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx = \frac{x^{1+m}}{2(1+m)}+\frac{e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{8(1+m)}+\frac{1}{4}e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)$$

```
[Out] 1/2*x^(1+m)/(1+m)+1/8*x^(1+m)*(c*x^n)^((1+m)/n)/exp(2*a*n*(-(1+m)^2/n^2)^(1
/2)/(1+m))/(1+m)+1/4*exp(2*a*n*(-(1+m)^2/n^2)^(1/2)/(1+m))*x^(1+m)*ln(x)/((
c*x^n)^((1+m)/n))
```

Rubi [A] (verified)

Time = 0.16 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.061, Rules used = {4582, 4578}

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx = \frac{x^{m+1}e^{-\frac{2an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}(cx^n)^{\frac{m+1}{n}}}{8(m+1)}+\frac{1}{4}x^{m+1}\log(x)e^{\frac{2an\sqrt{-\frac{(m+1)^2}{n^2}}}{m+1}}(cx^n)^{-\frac{m+1}{n}}+\frac{x^{m+1}}{2(m+1)}$$

```
[In] Int[x^m*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2,x]
```

```
[Out] x^(1 + m)/(2*(1 + m)) + (x^(1 + m)*(c*x^n)^((1 + m)/n))/(8*E^((2*a*Sqrt[-((
1 + m)^2/n^2)]*n)/(1 + m))*(1 + m)) + (E^((2*a*Sqrt[-((1 + m)^2/n^2)]*n)/(1
 + m))*x^(1 + m)*Log[x])/(4*(c*x^n)^((1 + m)/n))
```

Rule 4578

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[1/2^p, Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^2*(p/(m + 1)))/x^((m +
 1)/p) + x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x], x], x] /; FreeQ[{a,
b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m + 1)^2, 0]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(x)\right)dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\left(\frac{e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}}{x}+2x^{-1+\frac{1+m}{n}}+e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{-1+\frac{2(1+m)}{n}}\right)dx,x,cx^n\right)}{4n}\\
&= \frac{x^{1+m}}{2(1+m)}+\frac{e^{-\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{\frac{1+m}{n}}}{8(1+m)}+\frac{1}{4}e^{\frac{2a\sqrt{-\frac{(1+m)^2}{n^2}}n}{1+m}}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\log(x)
\end{aligned}
$$

Mathematica [F]

$$
\begin{aligned}
&\int x^m\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx\\
&=\int x^m\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx
\end{aligned}
$$

```
[In] Integrate[x^m*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2,x]
[Out] Integrate[x^m*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2, x]
```

Maple [F]

$$\int x^{m}\cos\left(a+\frac{\ln\left(c\,x^{n}\right)\sqrt{-\frac{\left(1+m\right)^{2}}{n^{2}}}}{2}\right)^{2}dx$$

```
[In] int(x^m*cos(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x)
```

```
[Out] int(x^m*cos(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 107, normalized size of antiderivative = 0.91

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{\left(2\,(m+1)e^{\left(-\frac{2\,((m+1)n\log(x)-2i\,an+(m+1)\log(c))}{n}\right)}\log\left(x\right)+4\,e^{\left(-\frac{(m+1)n\log(x)-2i\,an+(m+1)\log(c)}{n}\right)}+1\right)e^{\left(\frac{2\,((m+1)n\log(x)-2i\,an}{n}\right.}}{8\,(m+1)}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="fr
icas")
```

```
[Out] 1/8*(2*(m + 1)*e^(-2*((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n)*log(x
) + 4*e^(-((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) + 1)*e^(2*((m +
1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n + (2*I*a*n - (m + 1)*log(c))/n)/(
m + 1)
```

Sympy [F]

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \int x^{m}\cos^{2}\left(a+\frac{\sqrt{-\frac{m^{2}}{n^{2}}-\frac{2m}{n^{2}}-\frac{1}{n^{2}}}\log\left(cx^{n}\right)}{2}\right)\,dx$$

```
[In] integrate(x**m*cos(a+1/2*ln(c*x**n)*(-(1+m)**2/n**2)**(1/2))**2,x)
```

```
[Out] Integral(x**m*cos(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)/2)**
2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 172, normalized size of antiderivative = 1.47

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{4\left(\cos\left(2\,a\right)^2+\sin\left(2\,a\right)^2\right)c^{\frac{m}{n}+\frac{1}{n}}xx^m+c^{\frac{2\,m}{n}+\frac{2}{n}}x\cos\left(2\,a\right)e^{\left(m\log(x)+\frac{m\log(x^n)}{n}+\frac{\log(x^n)}{n}\right)}+2\left(\cos\left(2\,a\right)^3+\cos\left(2\,a\right)s\right.}{8\left(\left(\cos\left(2\,a\right)^2+\sin\left(2\,a\right)^2\right)c^{\frac{m}{n}+\frac{1}{n}}m+\left(\cos\left(2\,a\right)^2+\sin\left(2\,a\right)^2\right)\right.}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="ma
xima")
[Out] 1/8*(4*(cos(2*a)^2 + sin(2*a)^2)*c^(m/n + 1/n)*x*x^m + c^(2*m/n + 2/n)*x*co
s(2*a)*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n) + 2*(cos(2*a)^3 + cos(2*a)*
sin(2*a)^2 + (cos(2*a)^3 + cos(2*a)*sin(2*a)^2)*m)*log(x))/((cos(2*a)^2 + s
in(2*a)^2)*c^(m/n + 1/n)*m + (cos(2*a)^2 + sin(2*a)^2)*c^(m/n + 1/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 4.23 (sec) , antiderivative size = 498, normalized size of antiderivative = 4.26

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{m^2n^2xx^me^{\left(2i\,a-\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}+m^2n^2xx^me^{\left(-2i\,a+\frac{n|mn+n|\log(x)+|mn+n|\log(c)}{n^2}\right)}+2\,m^2n^2xx^m+2\,mn^2xx^{m}}{}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2,x, algorithm="gi
ac")
[Out] 1/4*(m^2*n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))
/n^2) + m^2*n^2*x*x^m*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log
(c))/n^2) + 2*m^2*n^2*x*x^m + 2*m*n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log(
x) + abs(m*n + n)*log(c))/n^2) + m*n*x*x^m*abs(m*n + n)*e^(2*I*a - (n*abs(m
*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 2*m*n^2*x*x^m*e^(-2*I*a + (n*a
bs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - m*n*x*x^m*abs(m*n + n)*e^(
-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 4*m*n^2*x*x^m
 + n^2*x*x^m*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2)
+ n*x*x^m*abs(m*n + n)*e^(2*I*a - (n*abs(m*n + n)*log(x) + abs(m*n + n)*log
(c))/n^2) + n^2*x*x^m*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m*n + n)*log
(c))/n^2) - n*x*x^m*abs(m*n + n)*e^(-2*I*a + (n*abs(m*n + n)*log(x) + abs(m
*n + n)*log(c))/n^2) - 2*(m*n + n)^2*x*x^m + 2*n^2*x*x^m)/(m^3*n^2 + 3*m^2*
n^2 - (m*n + n)^2*m + 3*m*n^2 - (m*n + n)^2 + n^2)
```

Mupad [B] (verification not implemented)

Time = 28.38 (sec) , antiderivative size = 143, normalized size of antiderivative = 1.22

$$\int x^m \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=\frac{x\,x^m}{2\,m+2}+\frac{x\,x^m\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}}{4\,m+4-n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,4\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}}{4\,m+4+n\,\sqrt{-\frac{{\left(m+1\right)}^2}{n^2}}\,4\mathrm{i}}$$

```
[In] int(x^m*cos(a + (log(c*x^n)*(-(m + 1)^2/n^2)^(1/2))/2)^2,x)
```

```
[Out] (x*x^m)/(2*m + 2) + (x*x^m*exp(-a*2i)/(c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n
^2)^(1/2)*1i))/(4*m - n*(-(m + 1)^2/n^2)^(1/2)*4i + 4) + (x*x^m*exp(a*2i)*(
c*x^n)^((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i))/(4*m + n*(-(m + 1)^2/n^2
)^(1/2)*4i + 4)
```

3.107 $\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 1440
Rubi [A] (verified) 1440
Mathematica [F] 1441
Maple [F] 1441
Fricas [C] (verification not implemented) 1442
Sympy [F] 1442
Maxima [A] (verification not implemented) 1442
Giac [A] (verification not implemented) 1443
Mupad [B] (verification not implemented) 1443

Optimal result

Integrand size = 24, antiderivative size = 68

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x}{2}+\frac{1}{8}e^{-2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

```
[Out] 1/2*x+1/8*x*(c*x^n)^(1/n)/exp(2*a*n*(-1/n^2)^(1/2))+1/4*exp(2*a*n*(-1/n^2)^
(1/2))*x*ln(x)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used = {4572, 4578}

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{1}{8}xe^{-2a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}}+\frac{1}{4}xe^{2a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}+\frac{x}{2}$$

```
[In] Int[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
```

```
[Out] x/2 + (x*(c*x^n)^n^(-1))/(8*E^(2*a*Sqrt[-n^(-2)]*n)) + (E^(2*a*Sqrt[-n^(-2)
]*n)*x*Log[x])/(4*(c*x^n)^n^(-1))
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4578

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[1/2^p, Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^2*(p/(m + 1)))/x^((m +
 1)/p) + x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x], x], x] /; FreeQ[{a,
b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{2a\sqrt{-\frac{1}{n^2}}n}}{x}+2x^{-1+\frac{1}{n}}+e^{-2a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}\right)dx, x, cx^n\right)}{4n}$$

$$= \frac{x}{2}+\frac{1}{8}e^{-2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{4}e^{2a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

Mathematica [F]

$$\int\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)dx=\int\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)dx$$

```
[In] Integrate[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2,x]
[Out] Integrate[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/2]^2, x]
```

Maple [F]

$$\int\cos\left(a+\frac{\ln\left(c\,x^n\right)\sqrt{-\frac{1}{n^2}}}{2}\right)^2dx$$

```
[In] int(cos(a+1/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
[Out] int(cos(a+1/2*ln(c*x^n)*(-1/n^2)^(1/2))^2,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.84

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$$
$$=\frac{1}{8}\left(x^2+4\,xe^{\left(\frac{2i\,an-\log(c)}{n}\right)}+2\,e^{\left(\frac{2\,(2i\,an-\log(c))}{n}\right)}\log(x)\right)e^{\left(-\frac{2i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(cos(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="fricas")
[Out] 1/8*(x^2 + 4*x*e^((2*I*a*n - log(c))/n) + 2*e^(2*(2*I*a*n - log(c))/n)*log(
x))*e^(-(2*I*a*n - log(c))/n)
```

Sympy [F]

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=\int \cos^2\left(a+\frac{\sqrt{-\frac{1}{n^2}}\log(cx^n)}{2}\right)\,dx$$

```
[In] integrate(cos(a+1/2*ln(c*x**n)*(-1/n**2)**(1/2))**2,x)
[Out] Integral(cos(a + sqrt(-1/n**2)*log(c*x**n)/2)**2, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.60

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=\frac{c^{\frac{2}{n}}x^2\cos(2\,a)+4\,c^{\left(\frac{1}{n}\right)}x+2\,\cos(2\,a)\log(x)}{8\,c^{\left(\frac{1}{n}\right)}}$$

```
[In] integrate(cos(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="maxima")
[Out] 1/8*(c^(2/n)*x^2*cos(2*a) + 4*c^(1/n)*x + 2*cos(2*a)*log(x))/c^(1/n)
```

Giac [A] (verification not implemented)

none

Time = 0.61 (sec) , antiderivative size = 1, normalized size of antiderivative = 0.01

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=+\infty$$

```
[In] integrate(cos(a+1/2*log(c*x^n)*(-1/n^2)^(1/2))^2,x, algorithm="giac")
[Out] +Infinity
```

Mupad [B] (verification not implemented)

Time = 29.07 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.26

$$\int \cos^2\left(a+\frac{1}{2}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{x}{2}+\frac{x\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}\,1\mathrm{i}}{4\,n\,\sqrt{-\frac{1}{n^2}}+4\mathrm{i}}-\frac{x\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}\,1\mathrm{i}}{4\,n\,\sqrt{-\frac{1}{n^2}}-4\mathrm{i}}$$

```
[In] int(cos(a + (log(c*x^n)*(-1/n^2)^(1/2))/2)^2,x)
[Out] x/2 + (x*exp(-a*2i)/(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(4*n*(-1/n^2)^(1/2) + 4
i) - (x*exp(a*2i)*(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(4*n*(-1/n^2)^(1/2) - 4i)
```

3.108 $\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$

Optimal result 1444
Rubi [A] (verified) 1445
Mathematica [A] (verified) 1446
Maple [F] 1447
Fricas [C] (verification not implemented) 1447
Sympy [F] 1447
Maxima [A] (verification not implemented) 1448
Giac [C] (verification not implemented) 1448
Mupad [B] (verification not implemented) 1450

Optimal result

Integrand size = 33, antiderivative size = 226

$$\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx = \frac{8x^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)}-\frac{4x^{1+m}\cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)}+\frac{4\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2}-\frac{6\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2}$$

```
[Out] 8/5*x^(1+m)*cos(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))/(1+m)-4/5*x^(1+m)*cos
(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3/(1+m)+4/5*n*x^(1+m)*sin(a+1/2*ln(c
*x^n)*(-(1+m)^2/n^2)^(1/2))*(-(1+m)^2/n^2)^(1/2)/(1+m)^2-6/5*n*x^(1+m)*cos(
a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^2*sin(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^
(1/2))*(-(1+m)^2/n^2)^(1/2)/(1+m)^2
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 226, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.061, Rules used = {4576, 4574}

$$\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx$$
$$=\frac{4n\sqrt{-\frac{(m+1)^2}{n^2}}x^{m+1}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log(cx^n)\right)}{5(m+1)^2}$$
$$-\frac{4x^{m+1}\cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log(cx^n)\right)}{5(m+1)}+\frac{8x^{m+1}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log(cx^n)\right)}{5(m+1)}$$
$$-\frac{6n\sqrt{-\frac{(m+1)^2}{n^2}}x^{m+1}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log(cx^n)\right)\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(m+1)^2}{n^2}}\log(cx^n)\right)}{5(m+1)^2}$$

```
[In] Int[x^m*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^3,x]
```

```
[Out] (8*x^(1 + m)*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2])/(5*(1 + m)) -
(4*x^(1 + m)*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^3)/(5*(1 + m))
+ (4*Sqrt[-((1 + m)^2/n^2)]*n*x^(1 + m)*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log
[c*x^n])/2])/(5*(1 + m)^2) - (6*Sqrt[-((1 + m)^2/n^2)]*n*x^(1 + m)*Cos[a +
(Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^2*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Lo
g[c*x^n])/2])/(5*(1 + m)^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}
&\text{integral} \\
&= -\frac{4x^{1+m}\cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)} \\
&\quad -\frac{6\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2} \\
&\quad +\frac{6}{5}\int x^m\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx \\
&= \frac{8x^{1+m}\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)}-\frac{4x^{1+m}\cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)} \\
&\quad +\frac{4\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2} \\
&\quad -\frac{6\sqrt{-\frac{(1+m)^2}{n^2}}nx^{1+m}\cos^2\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\sin\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)}{5(1+m)^2}
\end{aligned}$$

Mathematica [A] (verified)

Time = 1.04 (sec) , antiderivative size = 158, normalized size of antiderivative = 0.70

$$\int x^m\cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)dx$$

$$=\frac{x^{1+m}\left(10(1+m)\cos\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)-2(1+m)\cos\left(3a+\frac{3}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)+\sqrt{-\frac{(1+}{n}}\right.}{10(1+m)^2}$$

```
[In] Integrate[x^m*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2]^3,x]
```

```
[Out] (x^(1 + m)*(10*(1 + m)*Cos[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2] - 2*(
1 + m)*Cos[3*a + (3*Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2] + Sqrt[-((1 + m)^
2/n^2)]*n*(5*Sin[a + (Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2] - 3*Sin[3*a + (
3*Sqrt[-((1 + m)^2/n^2)]*Log[c*x^n])/2])))/(10*(1 + m)^2)
```

Maple [F]

$$\int x^{m} \cos\left(a+\frac{\ln\left(c\,x^{n}\right)\sqrt{-\frac{(1+m)^{2}}{n^{2}}}}{2}\right)^{3} dx$$

```
[In] int(x^m*cos(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x)
[Out] int(x^m*cos(a+1/2*ln(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 128, normalized size of antiderivative = 0.57

$$\int x^{m} \cos^{3}\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^{2}}{n^{2}}}\log\left(cx^{n}\right)\right) dx = \frac{\left(5\,e^{\left(-\frac{(m+1)n\log(x)-2i\,an+(m+1)\log(c)}{n}\right)}+15\,e^{\left(-\frac{2\left((m+1)n\log(x)-2i\,an+(m+1)\log(c)\right)}{n}\right)}-5\,e^{\left(-\frac{3\left((m+1)n\log(x)-2i\,an+(m+1)\log(c)\right)}{n}\right)}+\right.}{20\,(m+1)}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="fr
icas")
[Out] 1/20*(5*e^(-((m + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) + 15*e^(-2*((m
 + 1)*n*log(x) - 2*I*a*n + (m + 1)*log(c))/n) - 5*e^(-3*((m + 1)*n*log(x) -
 2*I*a*n + (m + 1)*log(c))/n) + 1)*e^(5/2*((m + 1)*n*log(x) - 2*I*a*n + (m
+ 1)*log(c))/n + (2*I*a*n - (m + 1)*log(c))/n)/(m + 1)
```

Sympy [F]

$$\int x^{m} \cos^{3}\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^{2}}{n^{2}}}\log\left(cx^{n}\right)\right) dx = \int x^{m} \cos^{3}\left(a+\frac{\sqrt{-\frac{m^{2}}{n^{2}}-\frac{2m}{n^{2}}-\frac{1}{n^{2}}}\log\left(cx^{n}\right)}{2}\right) dx$$

```
[In] integrate(x**m*cos(a+1/2*ln(c*x**n)*(-(1+m)**2/n**2)**(1/2))**3,x)
[Out] Integral(x**m*cos(a + sqrt(-m**2/n**2 - 2*m/n**2 - 1/n**2)*log(c*x**n)/2)**
3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 195, normalized size of antiderivative = 0.86

$$\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{\left(c^{\frac{3m}{n}+\frac{3}{n}}x\cos(3a)e^{\left(m\log(x)+\frac{3m\log(x^n)}{n}+\frac{3\log(x^n)}{n}\right)}+5c^{\frac{2m}{n}+\frac{2}{n}}x\cos(a)e^{\left(m\log(x)+\frac{2m\log(x^n)}{n}+\frac{2\log(x^n)}{n}\right)}+15c^{\frac{m}{n}+\frac{1}{n}}x\cos\ldots}{20\left(c^{\frac{3m}{2n}+\frac{3}{2n}}m+c^{\frac{3m}{2n}+\frac{3}{2n}}\right)}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="ma
xima")
```

```
[Out] 1/20*(c^(3*m/n + 3/n)*x*cos(3*a)*e^(m*log(x) + 3*m*log(x^n)/n + 3*log(x^n)/
n) + 5*c^(2*m/n + 2/n)*x*cos(a)*e^(m*log(x) + 2*m*log(x^n)/n + 2*log(x^n)/n
) + 15*c^(m/n + 1/n)*x*cos(a)*e^(m*log(x) + m*log(x^n)/n + log(x^n)/n) - 5*
x*x^m*cos(3*a))*e^(-3/2*m*log(x^n)/n - 3/2*log(x^n)/n)/(c^(3/2*m/n + 3/2/n)
*m + c^(3/2*m/n + 3/2/n))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 10.41 (sec) , antiderivative size = 1870, normalized size of antiderivative = 8.27

$$\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log\left(cx^n\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+1/2*log(c*x^n)*(-(1+m)^2/n^2)^(1/2))^3,x, algorithm="gi
ac")
```

```
[Out] 1/4*(8*m^3*n^4*x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*l
og(c))/n^2) + 24*m^3*n^4*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*
n + n)*log(c))/n^2) + 24*m^3*n^4*x*x^m*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x)
 + abs(m*n + n)*log(c))/n^2) + 8*m^3*n^4*x*x^m*e^(-3*I*a + 3/2*(n*abs(m*n +
 n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*m^2*n^4*x*x^m*e^(3*I*a - 3/2*(n
*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 12*m^2*n^3*x*x^m*abs(m*n
 + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 7
2*m^2*n^4*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/
n^2) + 12*m^2*n^3*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) +
abs(m*n + n)*log(c))/n^2) + 72*m^2*n^4*x*x^m*e^(-I*a + 1/2*(n*abs(m*n + n)*
log(x) + abs(m*n + n)*log(c))/n^2) - 12*m^2*n^3*x*x^m*abs(m*n + n)*e^(-I*a
```

```
+ 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*m^2*n^4*x*x^m
*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 12*m^
2*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n +
 n)*log(c))/n^2) - 2*(m*n + n)^2*m*n^2*x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)
*log(x) + abs(m*n + n)*log(c))/n^2) + 24*m*n^4*x*x^m*e^(3*I*a - 3/2*(n*abs(
m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*m*n^3*x*x^m*abs(m*n + n)*e
^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 54*(m*n
+ n)^2*m*n^2*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c
))/n^2) + 72*m*n^4*x*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)
*log(c))/n^2) + 24*m*n^3*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n + n)*lo
g(x) + abs(m*n + n)*log(c))/n^2) - 54*(m*n + n)^2*m*n^2*x*x^m*e^(-I*a + 1/2
*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 72*m*n^4*x*x^m*e^(-I*
a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 24*m*n^3*x*x^m
*abs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n
^2) - 2*(m*n + n)^2*m*n^2*x*x^m*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + ab
s(m*n + n)*log(c))/n^2) + 24*m*n^4*x*x^m*e^(-3*I*a + 3/2*(n*abs(m*n + n)*lo
g(x) + abs(m*n + n)*log(c))/n^2) - 24*m*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a +
3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 2*(m*n + n)^2*n^2*
x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 8
*n^4*x*x^m*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2
) - 3*(m*n + n)^2*n*x*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n*abs(m*n + n)*log(x
) + abs(m*n + n)*log(c))/n^2) + 12*n^3*x*x^m*abs(m*n + n)*e^(3*I*a - 3/2*(n
*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 54*(m*n + n)^2*n^2*x*x^m
*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*n^4*x
*x^m*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) - 27*(
m*n + n)^2*n*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n + n)*log(x) + abs(m
*n + n)*log(c))/n^2) + 12*n^3*x*x^m*abs(m*n + n)*e^(I*a - 1/2*(n*abs(m*n +
n)*log(x) + abs(m*n + n)*log(c))/n^2) - 54*(m*n + n)^2*n^2*x*x^m*e^(-I*a +
1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 24*n^4*x*x^m*e^(-I
*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 27*(m*n + n)^
2*n*x*x^m*abs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*
log(c))/n^2) - 12*n^3*x*x^m*abs(m*n + n)*e^(-I*a + 1/2*(n*abs(m*n + n)*log(
x) + abs(m*n + n)*log(c))/n^2) - 2*(m*n + n)^2*n^2*x*x^m*e^(-3*I*a + 3/2*(n
*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 8*n^4*x*x^m*e^(-3*I*a +
3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(c))/n^2) + 3*(m*n + n)^2*n*x*
x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x) + abs(m*n + n)*log(
c))/n^2) - 12*n^3*x*x^m*abs(m*n + n)*e^(-3*I*a + 3/2*(n*abs(m*n + n)*log(x)
 + abs(m*n + n)*log(c))/n^2))/(16*m^4*n^4 + 64*m^3*n^4 - 40*(m*n + n)^2*m^2
*n^2 + 96*m^2*n^4 - 80*(m*n + n)^2*m*n^2 + 64*m*n^4 + 9*(m*n + n)^4 - 40*(m
*n + n)^2*n^2 + 16*n^4)
```

Mupad [B] (verification not implemented)

Time = 30.25 (sec) , antiderivative size = 277, normalized size of antiderivative = 1.23

$$\int x^m \cos^3\left(a+\frac{1}{2}\sqrt{-\frac{(1+m)^2}{n^2}}\log(cx^n)\right)\,dx$$
$$=\frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{(c\,x^n)^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}{2}}}\left(2\,m+2+n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,1\mathrm{i}\right)}{4\,(m+1)^2}+\frac{x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,1\mathrm{i}}{2}}\left(2\,m+2-n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,1\mathrm{i}\right)}{4\,(m+1)^2}-\frac{x\,x^m\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{(c\,x^n)^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,3\mathrm{i}}{2}}}\left(2\,m+2+n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,3\mathrm{i}\right)}{20\,(m+1)^2}-\frac{x\,x^m\,\mathrm{e}^{a\,3\mathrm{i}}\,(c\,x^n)^{\frac{\sqrt{-\frac{2\,m}{n^2}-\frac{1}{n^2}-\frac{m^2}{n^2}}\,3\mathrm{i}}{2}}\left(2\,m+2-n\,\sqrt{-\frac{(m+1)^2}{n^2}}\,3\mathrm{i}\right)}{20\,(m+1)^2}$$

```
[In] int(x^m*cos(a + (log(c*x^n)*(-(m + 1)^2/n^2)^(1/2))/2)^3,x)
```

```
[Out] (x*x^m*exp(-a*1i)/(c*x^n)^(((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)/2)*(2
*m + n*(-(m + 1)^2/n^2)^(1/2)*1i + 2))/(4*(m + 1)^2) + (x*x^m*exp(a*1i)*(c*
x^n)^(((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(1/2)*1i)/2)*(2*m - n*(-(m + 1)^2/n^
2)^(1/2)*1i + 2))/(4*(m + 1)^2) - (x*x^m*exp(-a*3i)/(c*x^n)^(((- (2*m)/n^2
- 1/n^2 - m^2/n^2)^(1/2)*3i)/2)*(2*m + n*(-(m + 1)^2/n^2)^(1/2)*3i + 2))/(2
0*(m + 1)^2) - (x*x^m*exp(a*3i)*(c*x^n)^(((- (2*m)/n^2 - 1/n^2 - m^2/n^2)^(
1/2)*3i)/2)*(2*m - n*(-(m + 1)^2/n^2)^(1/2)*3i + 2))/(20*(m + 1)^2)
```

3.109 $\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$

Optimal result 1451
Rubi [A] (verified) 1451
Mathematica [F] 1452
Maple [F] 1453
Fricas [C] (verification not implemented) 1453
Sympy [F] 1453
Maxima [A] (verification not implemented) 1454
Giac [F(-2)] 1454
Mupad [B] (verification not implemented) 1454

Optimal result

Integrand size = 24, antiderivative size = 128

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{9}{16}e^{a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-\frac{1}{3}/n}+\frac{9}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{3}/n}+\frac{1}{16}e^{-3a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

```
[Out] 9/16*exp(a*n*(-1/n^2)^(1/2))*x/((c*x^n)^(1/3/n))+9/32*x*(c*x^n)^(1/3/n)/exp
(a*n*(-1/n^2)^(1/2))+1/16*x*(c*x^n)^(1/n)/exp(3*a*n*(-1/n^2)^(1/2))+1/8*exp
(3*a*n*(-1/n^2)^(1/2))*x*ln(x)/((c*x^n)^(1/n))
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 128, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.083, Rules used = {4572, 4578}

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\frac{9}{16}xe^{a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{-\frac{1}{3}/n}+\frac{9}{32}xe^{-a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{3}/n}+\frac{1}{16}xe^{-3a\sqrt{-\frac{1}{n^2}}n}(cx^n)^{\frac{1}{n}}+\frac{1}{8}xe^{3a\sqrt{-\frac{1}{n^2}}n}\log(x)\left(cx^n\right)^{-1/n}$$

```
[In] Int[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
```

```
[Out] (9*E^(a*Sqrt[-n^(-2)]*n)*x)/(16*(c*x^n)^(1/(3*n))) + (9*x*(c*x^n)^(1/(3*n))
)/(32*E^(a*Sqrt[-n^(-2)]*n)) + (x*(c*x^n)^n^(-1))/(16*E^(3*a*Sqrt[-n^(-2)]*
n)) + (E^(3*a*Sqrt[-n^(-2)]*n)*x*Log[x])/(8*(c*x^n)^n^(-1))
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4578

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[1/2^p, Int[ExpandIntegrand[(e*x)^m*(E^(a*b*d^2*(p/(m + 1)))/x^((m +
 1)/p) + x^((m + 1)/p)/E^(a*b*d^2*(p/(m + 1))))^p, x], x], x] /; FreeQ[{a,
b, d, e, m}, x] && IGtQ[p, 0] && EqQ[b^2*d^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(x)\right)\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\left(\frac{e^{3a\sqrt{-\frac{1}{n^2}}n}}{x}+3e^{a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{3n}}+3e^{-a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{4}{3n}}+e^{-3a\sqrt{-\frac{1}{n^2}}n}x^{-1+\frac{2}{n}}\right)\,d\right.}{8n}$$

$$= \frac{9}{16}e^{a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-\frac{1}{3}/n}+\frac{9}{32}e^{-a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{3}/n} + \frac{1}{16}e^{-3a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{\frac{1}{n}}+\frac{1}{8}e^{3a\sqrt{-\frac{1}{n^2}}n}x(cx^n)^{-1/n}\log(x)$$

Mathematica [F]

$$\int\cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx=\int\cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log(cx^n)\right)\,dx$$

```
[In] Integrate[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3,x]
[Out] Integrate[Cos[a + (Sqrt[-n^(-2)]*Log[c*x^n])/3]^3, x]
```

Maple [F]

$$\int \cos\left(a+\frac{\ln\left(c\,x^{n}\right)\sqrt{-\frac{1}{n^{2}}}}{3}\right)^{3}dx$$

```
[In] int(cos(a+1/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
[Out] int(cos(a+1/3*ln(c*x^n)*(-1/n^2)^(1/2))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 84, normalized size of antiderivative = 0.66

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx$$
$$=\frac{1}{32}\left(9\,x^{\frac{4}{3}}e^{\left(\frac{2\,(3i\,an-\log(c))}{3\,n}\right)}+2\,x^{2}+12\,e^{\left(\frac{2\,(3i\,an-\log(c))}{n}\right)}\log\left(x^{\frac{1}{3}}\right)+18\,x^{\frac{2}{3}}e^{\left(\frac{4\,(3i\,an-\log(c))}{3\,n}\right)}\right)e^{\left(-\frac{3i\,an-\log(c)}{n}\right)}$$

```
[In] integrate(cos(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="fricas")
[Out] 1/32*(9*x^(4/3)*e^(2/3*(3*I*a*n - log(c))/n) + 2*x^2 + 12*e^(2*(3*I*a*n - l
og(c))/n)*log(x^(1/3)) + 18*x^(2/3)*e^(4/3*(3*I*a*n - log(c))/n))*e^(-(3*I*
a*n - log(c))/n)
```

Sympy [F]

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx=\int \cos^{3}\left(a+\frac{\sqrt{-\frac{1}{n^{2}}}\log\left(cx^{n}\right)}{3}\right)\,dx$$

```
[In] integrate(cos(a+1/3*ln(c*x**n)*(-1/n**2)**(1/2))**3,x)
[Out] Integral(cos(a + sqrt(-1/n**2)*log(c*x**n)/3)**3, x)
```

Maxima [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 106, normalized size of antiderivative = 0.83

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \frac{9\,c^{\frac{5}{3\,n}}x(x^n)^{\frac{2}{3\,n}}\cos\left(a\right)+4\,c^{\frac{1}{3\,n}}(x^n)^{\frac{1}{3\,n}}\cos\left(3\,a\right)\log\left(x\right)+18\,c^{\left(\frac{1}{n}\right)}x\cos\left(a\right)+2\,c^{\frac{7}{3\,n}}\cos\left(3\,a\right)e^{\left(\frac{\log(x^n)}{3\,n}+2\,\log(x)\right)}}{32\,c^{\frac{4}{3\,n}}(x^n)^{\frac{1}{3\,n}}}$$

```
[In] integrate(cos(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="maxima")
[Out] 1/32*(9*c^(5/3/n)*x*(x^n)^(2/3/n)*cos(a) + 4*c^(1/3/n)*(x^n)^(1/3/n)*cos(3*
a)*log(x) + 18*c^(1/n)*x*cos(a) + 2*c^(7/3/n)*cos(3*a)*e^(1/3*log(x^n)/n +
2*log(x)))/(c^(4/3/n)*(x^n)^(1/3/n))
```

Giac [F(-2)]

Exception generated.

$$\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx = \text{Exception raised: NotImplementedError}$$

```
[In] integrate(cos(a+1/3*log(c*x^n)*(-1/n^2)^(1/2))^3,x, algorithm="giac")
[Out] Exception raised: NotImplementedError >> unable to parse Giac output: (9*sa
geVARn^4*sageVARx*exp((-3*i)*sageVARa)*exp((sageVARn*abs(sageVARn)*ln(sageV
ARx)+abs(sageVARn)*ln(sageVARc))/sageVARn^2)+27*sageVARn^4*sageVARx*exp((-i
)*sageVARa)*exp(
```

Mupad [B] (verification not implemented)

Time = 27.17 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.23

$$\begin{aligned}\int \cos^3\left(a+\frac{1}{3}\sqrt{-\frac{1}{n^2}}\log\left(cx^n\right)\right)\,dx &= x\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}{3}}}\left(\frac{27}{64}+\frac{n\,\sqrt{-\frac{1}{n^2}}\,9\mathrm{i}}{64}\right)\\ &\quad - x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{\frac{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}{3}}\left(-\frac{27}{64}+\frac{n\,\sqrt{-\frac{1}{n^2}}\,9\mathrm{i}}{64}\right)\\ &\quad + \frac{x\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}}\,1\mathrm{i}}{8\,n\,\sqrt{-\frac{1}{n^2}}+8\mathrm{i}} - \frac{x\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{\sqrt{-\frac{1}{n^2}}\,1\mathrm{i}}\,1\mathrm{i}}{8\,n\,\sqrt{-\frac{1}{n^2}}-8\mathrm{i}}\end{aligned}$$

```
[In] int(cos(a + (log(c*x^n)*(-1/n^2)^(1/2))/3)^3,x)
```

```
[Out] x*exp(-a*1i)/(c*x^n)^(((-1/n^2)^(1/2)*1i)/3)*((n*(-1/n^2)^(1/2)*9i)/64 + 27
/64) - x*exp(a*1i)*(c*x^n)^(((-1/n^2)^(1/2)*1i)/3)*((n*(-1/n^2)^(1/2)*9i)/6
4 - 27/64) + (x*exp(-a*3i)/(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(8*n*(-1/n^2)^(1
/2) + 8i) - (x*exp(a*3i)*(c*x^n)^((-1/n^2)^(1/2)*1i)*1i)/(8*n*(-1/n^2)^(1/2
) - 8i)
```

3.110 $\int \sqrt{\cos(a+b\log(cx^n))}\,dx$

Optimal result 1456
Rubi [A] (verified) 1456
Mathematica [B] (verified) 1457
Maple [F] 1458
Fricas [F(-2)] 1458
Sympy [F] 1458
Maxima [F] 1459
Giac [F] 1459
Mupad [F(-1)] 1459

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \sqrt{\cos(a+b\log(cx^n))}\,dx = \frac{2x\sqrt{\cos(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] 2*x*hypergeom([-1/2, 1/4*(-2*I-b*n)/b/n],[3/4-1/2*I/b/n],-exp(2*I*a)*(c*x^n
)^(2*I*b))*cos(a+b*ln(c*x^n))^(1/2)/(2-I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I*b)
)^(1/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \sqrt{\cos(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{bn+2i}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\cos(a+b\log(cx^n))}}{(2-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Sqrt[Cos[a + b*Log[c*x^n]]]*Hypergeometric2F1[-1/2, -1/4*(2*I + b*n)/(
b*n), (3 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - I*b*n)*
Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sqrt{\cos(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{\frac{ib}{2}-\frac{1}{n}}\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1}{n}}\sqrt{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}}$$

$$= \frac{2x\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 377 vs. $2(110) = 220$.

Time = 3.78 (sec) , antiderivative size = 377, normalized size of antiderivative = 3.43

$$\int\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,dx$$

$$= \frac{2be^{ia}nx(cx^n)^{ib}\sqrt{2+2e^{2ia}\left(cx^n\right)^{2ib}}\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},-e^{2ia}(cx^n)^{2ib}\right)\right.}{(2i+bn)(-2i+3bn)\sqrt{e^{-ia}\left(cx^n\right)^{-ib}+e^{ia}\left(cx^n\right)^{ib}}\left((-2+ibn)x\right.}$$

$$-\frac{2x\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\cos\left(a-bn\log(x)+b\log\left(cx^n\right)\right)}{-2\cos\left(a-bn\log(x)+b\log\left(cx^n\right)\right)+bn\sin\left(a-bn\log(x)+b\log\left(cx^n\right)\right)}$$

```
[In] Integrate[Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*b*E^(I*a)*n*x*(c*x^n)^(I*b)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*((
2*I + b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I
/2)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] + (-2*I + 3*b*n)*Hypergeometri
c2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), -(E^((2*I)*a)*(c*x^n)^
((2*I)*b))]))/((2*I + b*n)*(-2*I + 3*b*n)*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) +
E^(I*a)*(c*x^n)^(I*b)]*((-2 + I*b*n)*x^((2*I)*b*n) - I*E^((2*I)*a)*(-2*I +
b*n)*(c*x^n)^((2*I)*b))) - (2*x*Sqrt[Cos[a + b*Log[c*x^n]]]*Cos[a - b*n*Log
[x] + b*Log[c*x^n]])/(-2*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n*Sin[a - b
*n*Log[x] + b*Log[c*x^n]])
```

Maple [F]

$$\int \sqrt{\cos \left(a + b \ln \left(c\, x^{n}\right)\right)}dx$$

```
[In] int(cos(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(cos(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sqrt{\cos \left(a + b \log \left(c x^{n}\right)\right)}\, dx = \text{Exception raised: TypeError}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \sqrt{\cos \left(a + b \log \left(c x^{n}\right)\right)}\, dx = \int \sqrt{\cos \left(a + b \log \left(c x^{n}\right)\right)}\, dx$$

```
[In] integrate(cos(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(sqrt(cos(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \sqrt{\cos(a+b\log(cx^n))}\,dx = \int \sqrt{\cos(b\log(cx^n)+a)}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(sqrt(cos(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \sqrt{\cos(a+b\log(cx^n))}\,dx = \int \sqrt{\cos(b\log(cx^n)+a)}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(sqrt(cos(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sqrt{\cos(a+b\log(cx^n))}\,dx = \int \sqrt{\cos(a+b\,\ln(c\,x^n))}\,dx$$

```
[In] int(cos(a + b*log(c*x^n))^(1/2),x)
[Out] int(cos(a + b*log(c*x^n))^(1/2), x)
```

3.111 $\int \frac{\sqrt{\cos(a+b\log(cx^n))}}{x}\,dx$

Optimal result 1460
Rubi [A] (verified) 1460
Mathematica [A] (verified) 1461
Maple [B] (verified) 1461
Fricas [C] (verification not implemented) 1461
Sympy [F] 1462
Maxima [F] 1462
Giac [F] 1462
Mupad [B] (verification not implemented) 1462

Optimal result

Integrand size = 19, antiderivative size = 24

$$\int \frac{\sqrt{\cos(a+b\log(cx^n))}}{x}\,dx=\frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[Out] 2*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticE
(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 24, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.053, Rules used = {2719}

$$\int \frac{\sqrt{\cos(a+b\log(cx^n))}}{x}\,dx=\frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[In] Int[Sqrt[Cos[a + b*Log[c*x^n]]]/x,x]
[Out] (2*EllipticE[(a + b*Log[c*x^n])/2, 2])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx,x,\log(cx^n)\right)}{n}\\&=\frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 24, normalized size of antiderivative = 1.00

$$\int \frac{\sqrt{\cos(a+b\log(cx^n))}}{x}\,dx = \frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[In] Integrate[Sqrt[Cos[a + b*Log[c*x^n]]]/x,x]
[Out] (2*EllipticE[(a + b*Log[c*x^n])/2, 2])/(b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 180 vs. 2(60) = 120.

Time = 2.87 (sec) , antiderivative size = 181, normalized size of antiderivative = 7.54

method	result
derivativedivides	$\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\,\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\,\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\mathrm{EllipticE}\left(\mathrm{co}\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\,\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}\,b}$
default	$\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\,\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\,\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\mathrm{EllipticE}\left(\mathrm{co}\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\,\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}\,b}$

```
[In] int(cos(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)
[Out] 2/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)
*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-2*cos(1/2*a+1/2*b*ln(c*x^n))^2+1)^(
1/2)*EllipticE(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/(-2*sin(1/2*a+1/2*b*ln(c
*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*
cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 84, normalized size of antiderivative = 3.50

$$\int \frac{\sqrt{\cos(a+b\log(cx^n))}}{x}\,dx$$
$$= \frac{i\sqrt{2}\mathrm{weierstrassZeta}(-4,0,\mathrm{weierstrassPInverse}(-4,0,\cos(bn\log(x)+b\log(c)+a)+i\,\sin(bn\log(x)+}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")
```

[Out] (I*sqrt(2)*weierstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x)
 + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) - I*sqrt(2)*weierstra
ssZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) - I
*sin(b*n*log(x) + b*log(c) + a))))/(b*n)

Sympy [F]

$$\int \frac{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx=\int \frac{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx$$

[In] integrate(cos(a+b*ln(c*x**n))**(1/2)/x,x)

[Out] Integral(sqrt(cos(a + b*log(c*x**n)))/x, x)

Maxima [F]

$$\int \frac{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx=\int \frac{\sqrt{\cos\left(b\log\left(cx^{n}\right)+a\right)}}{x}\,dx$$

[In] integrate(cos(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")

[Out] integrate(sqrt(cos(b*log(c*x^n) + a))/x, x)

Giac [F]

$$\int \frac{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx=\int \frac{\sqrt{\cos\left(b\log\left(cx^{n}\right)+a\right)}}{x}\,dx$$

[In] integrate(cos(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")

[Out] integrate(sqrt(cos(b*log(c*x^n) + a))/x, x)

Mupad [B] (verification not implemented)

Time = 26.58 (sec) , antiderivative size = 23, normalized size of antiderivative = 0.96

$$\int \frac{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx=\frac{2\,\mathrm{E}\left(\frac{a}{2}+\frac{b\,\ln\left(c\,x^n\right)}{2}\middle|2\right)}{b\,n}$$

[In] int(cos(a + b*log(c*x^n))^(1/2)/x,x)

[Out] (2*ellipticE(a/2 + (b*log(c*x^n))/2, 2))/(b*n)

3.112 $\int \cos^{\frac{3}{2}}(a + b\log(cx^n))\,dx$

Optimal result 1463
Rubi [A] (verified) 1463
Mathematica [B] (verified) 1464
Maple [F] 1465
Fricas [F(-2)] 1465
Sympy [F] 1465
Maxima [F] 1466
Giac [F] 1466
Mupad [F(-1)] 1466

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\cos^{\frac{3}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] 2*x*cos(a+b*ln(c*x^n))^(3/2)*hypergeom([-3/2, -3/4-1/2*I/b/n],[1/4-1/2*I/b/
n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2-3*I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I*b))^
(3/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\cos^{\frac{3}{2}}(a+b\log(cx^n))}{(2-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x*Cos[a + b*Log[c*x^n]]^(3/2)*Hypergeometric2F1[-3/2, (-3 - (2*I)/(b*n))
/4, (1 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - (3*I)*b*n
)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{\frac{3ib}{2}-\frac{1}{n}}\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1}{n}}\left(1+e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}$$

$$= \frac{2x\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 220 vs. 2(109) = 218.

Time = 0.80 (sec) , antiderivative size = 220, normalized size of antiderivative = 2.02

$$\int\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= -\frac{6i\sqrt{2}b^2\sqrt{1+e^{2i(a+b\log(cx^n))}}n^2x\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{\sqrt{e^{-i(a+b\log(cx^n))}}\left(1+e^{2i(a+b\log(cx^n))}\right)(-2i+bn)(-2i+3bn)(2i+3bn)}$$
$$+\frac{2x\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\left(2\cos\left(a+b\log\left(cx^n\right)\right)+3bn\sin\left(a+b\log\left(cx^n\right)\right)\right)}{4+9b^2n^2}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] ((-6*I)*Sqrt[2]*b^2*Sqrt[1 + E^((2*I)*(a + b*Log[c*x^n]))]*n^2*x*Hypergeome
tric2F1[1/2, 1/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x
^n]))])/(Sqrt[(1 + E^((2*I)*(a + b*Log[c*x^n])))/E^(I*(a + b*Log[c*x^n]))]*
(-2*I + b*n)*(-2*I + 3*b*n)*(2*I + 3*b*n)) + (2*x*Sqrt[Cos[a + b*Log[c*x^n]
]]*(2*Cos[a + b*Log[c*x^n]] + 3*b*n*Sin[a + b*Log[c*x^n]]))/(4 + 9*b^2*n^2)
```

Maple [F]

$$\int \cos \left(a +b \ln \left(c \,x^{n}\right)\right)^{\frac{3}{2}}d x$$

```
[In] int(cos(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(cos(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\int \cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(cos(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(cos(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \cos^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \cos(b\log(cx^n) + a)^{\frac{3}{2}}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int \cos^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \cos(b\log(cx^n) + a)^{\frac{3}{2}}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \cos^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int \cos\left(a + b\,\ln\left(c\,x^n\right)\right)^{3/2}\,dx$$

```
[In] int(cos(a + b*log(c*x^n))^(3/2),x)
[Out] int(cos(a + b*log(c*x^n))^(3/2), x)
```

3.113 $\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 1467
Rubi [A] (verified) 1467
Mathematica [A] (verified) 1468
Maple [B] (verified) 1468
Fricas [C] (verification not implemented) 1469
Sympy [F] 1470
Maxima [F] 1470
Giac [F] 1470
Mupad [B] (verification not implemented) 1470

Optimal result

Integrand size = 19, antiderivative size = 63

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn} + \frac{2\sqrt{\cos(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{3bn}$$

```
[Out] 2/3*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*Ellipti
cF(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n+2/3*sin(a+b*ln(c*x^n))*cos(a+b*l
n(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {2715, 2720}

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn} + \frac{2\sin(a+b\log(cx^n))\sqrt{\cos(a+b\log(cx^n))}}{3bn}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] (2*EllipticF[(a + b*Log[c*x^n])/2, 2])/(3*b*n) + (2*Sqrt[Cos[a + b*Log[c*x^
n]]]*Sin[a + b*Log[c*x^n]])/(3*b*n)
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \cos^{\frac{3}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{2\sqrt{\cos(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{3bn} + \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx, x, \log(cx^n)\right)}{3n}\\ &= \frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn} + \frac{2\sqrt{\cos(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{3bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.86

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\left(\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)+\sqrt{\cos(a+b\log(cx^n))}\sin(a+b\log(cx^n))\right)}{3bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(3/2)/x,x]
[Out] (2*(EllipticF[(a + b*Log[c*x^n])/2, 2] + Sqrt[Cos[a + b*Log[c*x^n]]]*Sin[a
+ b*Log[c*x^n]]))/(3*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 246 vs. 2(93) = 186.

Time = 3.56 (sec) , antiderivative size = 247, normalized size of antiderivative = 3.92

method	result
derivativedivides	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\left(4\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}}$
default	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\left(4\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}}$

```
[In] int(cos(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] -2/3/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1
/2)*(4*cos(1/2*a+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^4-2*sin(1/2*a+
1/2*b*ln(c*x^n))^2*cos(1/2*a+1/2*b*ln(c*x^n))+(sin(1/2*a+1/2*b*ln(c*x^n))^2
)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticF(cos(1/2*a+1/2*b
*ln(c*x^n)),2^(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c
*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-
1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.70

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sqrt{\cos(bn\log(x)+b\log(c)+a)}\sin(bn\log(x)+b\log(c)+a)-i\sqrt{2}\text{weierstrassPInverse}(-4,0,\cos(bn}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
```

```
[Out] 1/3*(2*sqrt(cos(b*n*log(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a)
- I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) + I*s
in(b*n*log(x) + b*log(c) + a)) + I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b
*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(cos(a+b*ln(c*x**n))**(3/2)/x,x)
[Out] Integral(cos(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^{\frac{3}{2}}}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(3/2)/x, x)
```

Giac [F]

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^{\frac{3}{2}}}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)^(3/2)/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.50 (sec) , antiderivative size = 56, normalized size of antiderivative = 0.89

$$\int \frac{\cos^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\,\mathrm{F}\left(\frac{a}{2}+\frac{b\,\ln(c\,x^n)}{2}\middle|2\right)}{3\,b\,n} + \frac{2\,\sqrt{\cos(a+b\,\ln(c\,x^n))}\,\sin(a+b\,\ln(c\,x^n))}{3\,b\,n}$$

```
[In] int(cos(a + b*log(c*x^n))^(3/2)/x,x)
[Out] (2*ellipticF(a/2 + (b*log(c*x^n))/2, 2))/(3*b*n) + (2*cos(a + b*log(c*x^n))
^(1/2)*sin(a + b*log(c*x^n)))/(3*b*n)
```

3.114 $\int \cos^{\frac{5}{2}}(a+b\log(cx^n))\,dx$

Optimal result 1471
Rubi [A] (verified) 1471
Mathematica [B] (verified) 1472
Maple [F] 1473
Fricas [F(-2)] 1474
Sympy [F(-1)] 1474
Maxima [F] 1474
Giac [F] 1474
Mupad [F(-1)] 1475

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \cos^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\cos^{\frac{5}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{2i+bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}}$$

```
[Out] 2*x*cos(a+b*ln(c*x^n))^(5/2)*hypergeom([-5/2, -5/4-1/2*I/b/n],[1/4*(-2*I-b*
n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2-5*I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I
*b))^(5/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \cos^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\cos^{\frac{5}{2}}(a+b\log(cx^n))}{(2-5ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x*Cos[a + b*Log[c*x^n]]^(5/2)*Hypergeometric2F1[-5/2, (-5 - (2*I)/(b*n))
/4, -1/4*(2*I + b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - (5*I)*
b*n)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos^{\frac{5}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n} \\
&= \frac{\left(x(cx^n)^{\frac{5ib}{2}-\frac{1}{n}}\cos^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{5ib}{2}+\frac{1}{n}}\left(1+e^{2ia}x^{2ib}\right)^{5/2}\,dx,x,cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}} \\
&= \frac{2x\cos^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{2i+bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 696 vs. $2(110) = 220$.

Time = 8.49 (sec) , antiderivative size = 696, normalized size of antiderivative = 6.33

$$\int \cos^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{30b^3e^{i(a+b(-n\log(x)+\log(cx^n)))}n^3x^{1-ibn}\sqrt{2+2e^{2i(a+b(-n\log(x)+\log(cx^n)))}x^{2ibn}}\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\right.}{(2-5ibn)(2i+bn)(-2i+3bn)(-2i+5bn)\left(-2i-bn+e^{2i(a}\right.} + \sqrt{\cos(a+bn\log(x)+b(-n\log(x)+\log(cx^n)))}\left(-\frac{2x(2\cos(a+b(-n\log(x)+\log(cx^n)))+15b^2n^2\,\mathrm{c}}{(-2i+5bn)(2i+5bn)(-2\cos(a+b(-}\right. + \frac{x\sin(2bn\log(x))\left(5bn\cos(2(a+b(-n\log(x)+\log(cx^n))))-2\sin(2(a+b(-n\log(x)+\log(cx^n))))\right)}{(-2i+5bn)(2i+5bn)} + \frac{x\cos(2bn\log(x))\left(2\cos(2(a+b(-n\log(x)+\log(cx^n))))+5bn\sin(2(a+b(-n\log(x)+\log(cx^n))))\right)}{(-2i+5bn)(2i+5bn)}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (30*b^3*E^(I*(a + b*(-(n*Log[x]) + Log[c*x^n])))*n^3*x^(1 - I*b*n)*Sqrt[2 +
 2*E^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*I)*b*n)]*((2*I + b*n)
*x^((2*I)*b*n)*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n),
 -(E^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*I)*b*n))] + (-2*I + 3
*b*n)*Hypergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), -(E
^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*I)*b*n))]))/((2 - (5*I)*b
*n)*(2*I + b*n)*(-2*I + 3*b*n)*(-2*I + 5*b*n)*(-2*I - b*n + E^((2*I)*(a + b
*(-(n*Log[x]) + Log[c*x^n])))*(-2*I + b*n))*Sqrt[(1 + E^((2*I)*(a + b*(-(n*
Log[x]) + Log[c*x^n])))*x^((2*I)*b*n))/(E^(I*(a + b*(-(n*Log[x]) + Log[c*x^
n])))*x^(I*b*n))]) + Sqrt[Cos[a + b*n*Log[x] + b*(-(n*Log[x]) + Log[c*x^n])
]]*((-2*x*(2*Cos[a + b*(-(n*Log[x]) + Log[c*x^n])] + 15*b^2*n^2*Cos[a + b*(
-(n*Log[x]) + Log[c*x^n])] - b*n*Sin[a + b*(-(n*Log[x]) + Log[c*x^n])]))/((
-2*I + 5*b*n)*(2*I + 5*b*n)*(-2*Cos[a + b*(-(n*Log[x]) + Log[c*x^n])] + b*n
*Sin[a + b*(-(n*Log[x]) + Log[c*x^n])])) + (x*Sin[2*b*n*Log[x]]*(5*b*n*Cos[
2*(a + b*(-(n*Log[x]) + Log[c*x^n]))] - 2*Sin[2*(a + b*(-(n*Log[x]) + Log[c
*x^n]))]))/((-2*I + 5*b*n)*(2*I + 5*b*n)) + (x*Cos[2*b*n*Log[x]]*(2*Cos[2*(
a + b*(-(n*Log[x]) + Log[c*x^n]))] + 5*b*n*Sin[2*(a + b*(-(n*Log[x]) + Log[
c*x^n]))]))/((-2*I + 5*b*n)*(2*I + 5*b*n)))
```

Maple [F]

$$\int \cos\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{5}{2}}dx$$

```
[In] int(cos(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(cos(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \cos^{\frac{5}{2}}(a + b\log(cx^n)) \, dx = \text{Exception raised: TypeError}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F(-1)]

Timed out.

$$\int \cos^{\frac{5}{2}}(a + b\log(cx^n)) \, dx = \text{Timed out}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \cos^{\frac{5}{2}}(a + b\log(cx^n)) \, dx = \int \cos(b\log(cx^n) + a)^{\frac{5}{2}} \, dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(5/2), x)
```

Giac [F]

$$\int \cos^{\frac{5}{2}}(a + b\log(cx^n)) \, dx = \int \cos(b\log(cx^n) + a)^{\frac{5}{2}} \, dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)^(5/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \cos^{\frac{5}{2}}(a+b\log(cx^n))\,dx=\int \cos\left(a+b\,\ln\left(c\,x^n\right)\right)^{5/2}\,dx$$

```
[In] int(cos(a + b*log(c*x^n))^(5/2),x)
[Out] int(cos(a + b*log(c*x^n))^(5/2), x)
```

3.115 $\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 1476
Rubi [A] (verified) 1476
Mathematica [A] (verified) 1477
Maple [B] (verified) 1477
Fricas [C] (verification not implemented) 1478
Sympy [F(-1)] 1479
Maxima [F] 1479
Giac [F] 1479
Mupad [B] (verification not implemented) 1479

Optimal result

Integrand size = 19, antiderivative size = 63

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{6E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{5bn} + \frac{2\cos^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{5bn}$$

```
[Out] 6/5*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticE(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n+2/5*cos(a+b*ln(c*x^n))^(3/2)*sin(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.105$, Rules used = {2715, 2719}

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{6E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{5bn} + \frac{2\sin(a+b\log(cx^n))\cos^{\frac{3}{2}}(a+b\log(cx^n))}{5bn}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] (6*EllipticE[(a + b*Log[c*x^n])/2, 2])/(5*b*n) + (2*Cos[a + b*Log[c*x^n]]^(3/2)*Sin[a + b*Log[c*x^n]])/(5*b*n)
```

Rule 2715

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Sin[c + d*x])^(n - 1)/(d*n)), x] + Dist[b^2*((n - 1)/n), Int[(b*Sin[
c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] && IntegerQ[2
*n]
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \cos^{\frac{5}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}$$

$$= \frac{2\cos^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{5bn} + \frac{3\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx, x, \log(cx^n)\right)}{5n}$$

$$= \frac{6E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{5bn} + \frac{2\cos^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{5bn}$$

Mathematica [A] (verified)

Time = 0.11 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.92

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{6E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right) + \sqrt{\cos(a+b\log(cx^n))}\sin(2(a+b\log(cx^n)))}{5bn}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(5/2)/x,x]
[Out] (6*EllipticE[(a + b*Log[c*x^n])/2, 2] + Sqrt[Cos[a + b*Log[c*x^n]]]*Sin[2*(
a + b*Log[c*x^n])])/(5*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 279 vs. 2(93) = 186.

Time = 7.51 (sec) , antiderivative size = 280, normalized size of antiderivative = 4.44

method	result
derivativedivides	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\left(-8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{6}+8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\mathrm{s}\right.}{5n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{4}+}}$
default	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\left(-8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{6}+8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\mathrm{s}\right.}{5n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{4}+}}$

```
[In] int(cos(a+b*ln(c*x^n))^(5/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] -2/5/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1
/2)*(-8*cos(1/2*a+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^6+8*cos(1/2*a
+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^4-2*sin(1/2*a+1/2*b*ln(c*x^n))
^2*cos(1/2*a+1/2*b*ln(c*x^n))-3*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*
sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticE(cos(1/2*a+1/2*b*ln(c*x^n)),2^
(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2
)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 113, normalized size of antiderivative = 1.79

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^{n}))}{x}\,dx$$
$$= \frac{2\cos(bn\log(x)+b\log(c)+a)^{\frac{3}{2}}\sin(bn\log(x)+b\log(c)+a)+3i\sqrt{2}\text{weierstrassZeta}(-4,0,\text{weierstrassP}}{}$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2)/x,x, algorithm="fricas")
```

```
[Out] 1/5*(2*cos(b*n*log(x) + b*log(c) + a)^(3/2)*sin(b*n*log(x) + b*log(c) + a)
+ 3*I*sqrt(2)*weierstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log
(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) - 3*I*sqrt(2)*weie
rstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a
) - I*sin(b*n*log(x) + b*log(c) + a))))/(b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cos(a+b*ln(c*x**n))**(5/2)/x,x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^{\frac{5}{2}}}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2)/x,x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(5/2)/x, x)
```

Giac [F]

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cos(b\log(cx^n)+a)^{\frac{5}{2}}}{x}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^(5/2)/x,x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)^(5/2)/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.96 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.03

$$\int \frac{\cos^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\cos(a+b\,\ln(c\,x^n))^{7/2}\,\sin(a+b\,\ln(c\,x^n))\;{}_2\mathrm{F}_1\left(\frac{1}{2},\frac{7}{4};\;\frac{11}{4};\;\cos(a+b\,\ln(c\,x^n))^2\right)}{7\,b\,n\,\sqrt{\sin(a+b\,\ln(c\,x^n))^2}}$$

```
[In] int(cos(a + b*log(c*x^n))^(5/2)/x,x)
[Out] -(2*cos(a + b*log(c*x^n))^(7/2)*sin(a + b*log(c*x^n))*hypergeom([1/2, 7/4],
 11/4, cos(a + b*log(c*x^n))^2))/(7*b*n*(sin(a + b*log(c*x^n))^2)^(1/2))
```

3.116 $\int \frac{1}{\sqrt{\cos(a+b\log(cx^n))}}\,dx$

Optimal result 1480
Rubi [A] (verified) 1480
Mathematica [A] (verified) 1481
Maple [F] 1482
Fricas [F(-2)] 1482
Sympy [F] 1482
Maxima [F] 1482
Giac [F] 1483
Mupad [F(-1)] 1483

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\sqrt{\cos(a+b\log(cx^n))}}\,dx = \frac{2x\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+ibn)\sqrt{\cos(a+b\log(cx^n))}}$$

```
[Out] 2*x*hypergeom([1/2, 1/4-1/2*I/b/n],[5/4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I
*b))*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)/(2+I*b*n)/cos(a+b*ln(c*x^n))^(1/2
)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \frac{1}{\sqrt{\cos(a+b\log(cx^n))}}\,dx = \frac{2x\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+ibn)\sqrt{\cos(a+b\log(cx^n))}}$$

```
[In] Int[1/Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, (1 - (2
*I)/(b*n))/4, (5 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 +
 I*b*n)*Sqrt[Cos[a + b*Log[c*x^n]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sqrt{\cos(a+b\log(x))}}\,dx, x, cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{-\frac{ib}{2}-\frac{1}{n}}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{ib}{2}+\frac{1}{n}}}{\sqrt{1+e^{2ia}x^{2ib}}}\,dx, x, cx^n\right)}{n\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\\
&= \frac{2x\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}\left(cx^n\right)^{2ib}\right)}{(2+ibn)\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.38 (sec) , antiderivative size = 134, normalized size of antiderivative = 1.23

$$\int \frac{1}{\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\,dx = -\frac{2i\sqrt{2}\sqrt{1+e^{2i(a+b\log(cx^n))}}x\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{\sqrt{e^{-i(a+b\log(cx^n))}\left(1+e^{2i(a+b\log(cx^n))}\right)}(-2i+bn)}$$

```
[In] Integrate[1/Sqrt[Cos[a + b*Log[c*x^n]]],x]
[Out] ((-2*I)*Sqrt[2]*Sqrt[1 + E^((2*I)*(a + b*Log[c*x^n]))]*x*Hypergeometric2F1[
1/2, 1/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/
(Sqrt[(1 + E^((2*I)*(a + b*Log[c*x^n])))/E^(I*(a + b*Log[c*x^n]))]*(-2*I +
b*n))
```

Maple [F]

$$\int \frac{1}{\sqrt{\cos \left(a+b \ln \left(c\, x^{n}\right)\right)}}dx$$

```
[In] int(1/cos(a+b*ln(c*x^n))^(1/2),x)
[Out] int(1/cos(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sqrt{\cos \left(a+b \log \left(cx^{n}\right)\right)}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{1}{\sqrt{\cos \left(a+b \log \left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\cos \left(a+b \log \left(cx^{n}\right)\right)}}\,dx$$

```
[In] integrate(1/cos(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(1/sqrt(cos(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{1}{\sqrt{\cos \left(a+b \log \left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\cos \left(b \log \left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/sqrt(cos(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \frac{1}{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\cos\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/sqrt(cos(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)}}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^(1/2),x)
[Out] int(1/cos(a + b*log(c*x^n))^(1/2), x)
```

3.117 $\int \frac{1}{x\sqrt{\cos(a+b\log(cx^n))}}\,dx$

Optimal result 1484
Rubi [A] (verified) 1484
Mathematica [A] (verified) 1485
Maple [C] (verified) 1485
Fricas [C] (verification not implemented) 1485
Sympy [F] 1486
Maxima [F] 1486
Giac [F] 1486
Mupad [B] (verification not implemented) 1486

Optimal result

Integrand size = 19, antiderivative size = 24

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log\left(cx^n\right)),2\right)}{bn}$$

```
[Out] 2*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticF
(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 24, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.053, Rules used = {2720}

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log\left(cx^n\right)),2\right)}{bn}$$

```
[In] Int[1/(x*Sqrt[Cos[a + b*Log[c*x^n]]]),x]
[Out] (2*EllipticF[(a + b*Log[c*x^n])/2, 2])/(b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx,x,\log\left(cx^n\right)\right)}{n}\\&=\frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log\left(cx^n\right)),2\right)}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 24, normalized size of antiderivative = 1.00

$$\int \frac{1}{x\sqrt{\cos(a+b\log(cx^n))}}\,dx = \frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{bn}$$

```
[In] Integrate[1/(x*Sqrt[Cos[a + b*Log[c*x^n]]]),x]
```

```
[Out] (2*EllipticF[(a + b*Log[c*x^n])/2, 2])/(b*n)
```

Maple [C] (verified)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 1.18 (sec) , antiderivative size = 26, normalized size of antiderivative = 1.08

method	result	size
derivativedivides	$\frac{2\ \text{InverseJacobiAM}\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2},\sqrt{2}\right)}{nb}$	26
default	$\frac{2\ \text{InverseJacobiAM}\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2},\sqrt{2}\right)}{nb}$	26

```
[In] int(1/x/cos(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
```

```
[Out] 2/n/b*InverseJacobiAM(1/2*a+1/2*b*ln(c*x^n),2^(1/2))
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 78, normalized size of antiderivative = 3.25

$$\int \frac{1}{x\sqrt{\cos(a+b\log(cx^n))}}\,dx$$
$$= \frac{-i\sqrt{2}\text{weierstrassPInverse}(-4,0,\cos(bn\log(x)+b\log(c)+a)+i\,\sin(bn\log(x)+b\log(c)+a))+i\sqrt{2}}{bn}$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] (-I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) + I*s
in(b*n*log(x) + b*log(c) + a)) + I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b
*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx$$

```
[In] integrate(1/x/cos(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(1/(x*sqrt(cos(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\cos\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/(x*sqrt(cos(b*log(c*x^n) + a))), x)
```

Giac [F]

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\cos\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/(x*sqrt(cos(b*log(c*x^n) + a))), x)
```

Mupad [B] (verification not implemented)

Time = 26.37 (sec) , antiderivative size = 23, normalized size of antiderivative = 0.96

$$\int \frac{1}{x\sqrt{\cos\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\frac{2\,\mathrm{F}\left(\frac{a}{2}+\frac{b\,\ln\left(c\,x^{n}\right)}{2}\middle|2\right)}{b\,n}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))^(1/2)),x)
[Out] (2*ellipticF(a/2 + (b*log(c*x^n))/2, 2))/(b*n)
```

3.118 $\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 1487
Rubi [A] (verified) 1487
Mathematica [B] (verified) 1488
Maple [F] 1489
Fricas [F(-2)] 1489
Sympy [F] 1489
Maxima [F] 1490
Giac [F(-1)] 1490
Mupad [F(-1)] 1490

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*hypergeom([3/2, 3/4-1/2*I/b/n],[7/
4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2+3*I*b*n)/cos(a+b*ln(c*x^n))^(3
/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (2*x*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Hypergeometric2F1[3/2, (3 -
(2*I)/(b*n))/4, (7 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2
 + (3*I)*b*n)*Cos[a + b*Log[c*x^n]]^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\cos^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{3ib}{2}-\frac{1}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3ib}{2}+\frac{1}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^{3/2}}\,dx, x, cx^n\right)}{n\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

$$= \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2}, \frac{1}{4}\left(3-\frac{2i}{bn}\right), \frac{1}{4}\left(7-\frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(2+3ibn)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 431 vs. 2(109) = 218.

Time = 6.57 (sec) , antiderivative size = 431, normalized size of antiderivative = 3.95

$$\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{x\left(-\left((4+b^2n^2)\,x^{ibn}\sqrt{2+2e^{2ia}(cx^n)^{2ib}}\sqrt{\cos(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(\frac{1}{2}, \frac{3}{4}-\frac{i}{2bn}, \frac{7}{4}-\frac{i}{2bn}, -\right.\right.\right.}{bn(-2i+}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (x*(-((4 + b^2*n^2)*x^(I*b*n)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqr
t[Cos[a + b*Log[c*x^n]]]*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I
/2)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]) + ((-2*I + 3*b*n)*(-((-2*I +
b*n)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Cos[a + b*Log[c*x^n]]]*
Hypergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), -(E^((2*I
)*a)*(c*x^n)^((2*I)*b))]) + 2*x^(I*b*n)*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^
(I*a)*(c*x^n)^(I*b)]*(b*n*Cos[b*n*Log[x]] - 2*Sin[b*n*Log[x]])))/x^(I*b*n))
)/(b*n*(-2*I + 3*b*n)*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b
)]*Sqrt[Cos[a + b*Log[c*x^n]]]*(-2*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n
*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \frac{1}{\cos \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(1/cos(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(1/cos(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/cos(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(cos(a + b*log(c*x**n))**(-3/2), x)
```

Maxima [F]

$$\int \frac{1}{\cos^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \frac{1}{\cos\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(-3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{\cos^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \text{Timed out}$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\cos^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \frac{1}{{\cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)}^{3/2}}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^(3/2),x)
[Out] int(1/cos(a + b*log(c*x^n))^(3/2), x)
```

3.119 $\int \frac{1}{x \cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 1491
Rubi [A] (verified) 1491
Mathematica [A] (verified) 1492
Maple [B] (verified) 1492
Fricas [C] (verification not implemented) 1493
Sympy [F] 1493
Maxima [F] 1494
Giac [F(-1)] 1494
Mupad [B] (verification not implemented) 1494

Optimal result

Integrand size = 19, antiderivative size = 59

$$\int \frac{1}{x \cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn} + \frac{2\sin(a+b\log(cx^n))}{bn\sqrt{\cos(a+b\log(cx^n))}}$$

```
[Out] -2*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*Elliptic
E(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n+2*sin(a+b*ln(c*x^n))/b/n/cos(a+b*
ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 59, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.105$, Rules used = {2716, 2719}

$$\int \frac{1}{x \cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2\sin(a+b\log(cx^n))}{bn\sqrt{\cos(a+b\log(cx^n))}} - \frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[In] Int[1/(x*Cos[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (-2*EllipticE[(a + b*Log[c*x^n])/2, 2])/(b*n) + (2*Sin[a + b*Log[c*x^n]])/(
b*n*Sqrt[Cos[a + b*Log[c*x^n]]])
```

Rule 2716

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Sin[c + d*x])^(n + 1)/(b*d*(n + 1))), x] + Dist[(n + 2)/(b^2*(n + 1)), In
t[(b*Sin[c + d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] &&
IntegerQ[2*n]
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\cos^{\frac{3}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{2\sin\left(a+b\log\left(cx^n\right)\right)}{bn\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}} - \frac{\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= -\frac{2E\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)\right)\middle|\,2\right)}{bn} + \frac{2\sin\left(a+b\log\left(cx^n\right)\right)}{bn\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.92

$$\int \frac{1}{x\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\,dx = \frac{2\left(-E\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)\right)\middle|\,2\right) + \frac{\sin(a+b\log(cx^n))}{\sqrt{\cos(a+b\log(cx^n))}}\right)}{bn}$$

```
[In] Integrate[1/(x*Cos[a + b*Log[c*x^n]]^(3/2)),x]
[Out] (2*(-EllipticE[(a + b*Log[c*x^n])/2, 2] + Sin[a + b*Log[c*x^n]]/Sqrt[Cos[a
+ b*Log[c*x^n]]]))/(b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 249 vs. 2(93) = 186.

Time = 2.46 (sec) , antiderivative size = 250, normalized size of antiderivative = 4.24

method	result
derivativedivides	$-\frac{2\left(-2\cos\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2+\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{cx^n}\right)\right)}{2}}\cdots\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2 s\cdots}}$
default	$-\frac{2\left(-2\cos\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2+\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{cx^n}\right)\right)}{2}}\cdots\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2 s\cdots}}$

```
[In] int(1/x/cos(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
```

```
[Out] -2/n*(-2*cos(1/2*a+1/2*b*ln(c*x^n))*(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/
2*a+1/2*b*ln(c*x^n))^2)^(1/2)*sin(1/2*a+1/2*b*ln(c*x^n))^2+(sin(1/2*a+1/2*b
*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-2*sin(1/2*
a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticE(cos(1/2*
a+1/2*b*ln(c*x^n)),2^(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2
*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x
^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 150, normalized size of antiderivative = 2.54

$$\int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{-i\sqrt{2}\cos(bn\log(x)+b\log(c)+a)\,\text{weierstrassZeta}(-4,0,\text{weierstrassPInverse}(-4,0,\cos(bn\log(x)+b$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] (-I*sqrt(2)*cos(b*n*log(x) + b*log(c) + a)*weierstrassZeta(-4, 0, weierstra
ssPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log
(c) + a))) + I*sqrt(2)*cos(b*n*log(x) + b*log(c) + a)*weierstrassZeta(-4, 0
, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) - I*sin(b*n*log
(x) + b*log(c) + a))) + 2*sqrt(cos(b*n*log(x) + b*log(c) + a))*sin(b*n*log(
x) + b*log(c) + a))/(b*n*cos(b*n*log(x) + b*log(c) + a))
```

Sympy [F]

$$\int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/cos(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(1/(x*cos(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\cos(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(1/(x*cos(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.26 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.10

$$\int \frac{1}{x\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2\sin(a+b\ln(c\,x^n))\,{}_2F_1\left(-\frac{1}{4},\frac{1}{2};\ \frac{3}{4};\ \cos(a+b\ln(c\,x^n))^2\right)}{b\,n\,\sqrt{\cos(a+b\ln(c\,x^n))}\,\sqrt{\sin(a+b\ln(c\,x^n))^2}}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))^(3/2)),x)
[Out] (2*sin(a + b*log(c*x^n))*hypergeom([-1/4, 1/2], 3/4, cos(a + b*log(c*x^n))^
2))/(b*n*cos(a + b*log(c*x^n))^(1/2)*(sin(a + b*log(c*x^n))^2)^(1/2))
```

3.120 $\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 1495
Rubi [A] (verified) 1495
Mathematica [A] (verified) 1496
Maple [F] 1497
Fricas [F(-2)] 1497
Sympy [F(-1)] 1497
Maxima [F] 1498
Giac [F(-1)] 1498
Mupad [F(-1)] 1498

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\cos^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*hypergeom([5/2, 5/4-1/2*I/b/n],[9/
4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2+5*I*b*n)/cos(a+b*ln(c*x^n))^(5
/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4580, 371}

$$\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\cos^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Hypergeometric2F1[5/2, (5 -
(2*I)/(b*n))/4, (9 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2
 + (5*I)*b*n)*Cos[a + b*Log[c*x^n]]^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1}{n}}}{\cos^{\frac{5}{2}}(a+b\log(x))}\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{-\frac{5ib}{2}-\frac{1}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ib}{2}+\frac{1}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^{5/2}}\,dx,x,cx^n\right)}{n\cos^{\frac{5}{2}}(a+b\log(cx^n))}\\
&= \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2+5ibn)\cos^{\frac{5}{2}}(a+b\log(cx^n))}
\end{aligned}$$

Mathematica [A] (verified)

Time = 2.01 (sec) , antiderivative size = 188, normalized size of antiderivative = 1.72

$$\int\frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\left(\frac{(2-ibn)\sqrt{2+2e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{\sqrt{e^{-ia}(cx^n)^{-ib}+e^{ia}(cx^n)^{ib}}}+\frac{-2\cos(a+b\log(cx^n))+bn\sin(a+b\log(cx^n))}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\right)}{3b^2n^2}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*(((2 - I*b*n)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric
2F1[1/2, 1/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n])
)])/Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b)] + (-2*Cos[a + b
*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]])/Cos[a + b*Log[c*x^n]]^(3/2)))/(3*
b^2*n^2)
```

Maple [F]

$$\int \frac{1}{\cos \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{5}{2}}}dx$$

```
[In] int(1/cos(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(1/cos(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\cos^{\frac{5}{2}}\left(a+b\log \left(cx^{n}\right)\right)}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{\cos^{\frac{5}{2}}\left(a+b\log \left(cx^{n}\right)\right)}\,dx=\text{Timed out}$$

```
[In] integrate(1/cos(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\cos(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^(-5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/cos(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\cos(a+b\,\ln(c\,x^n))^{5/2}}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^(5/2),x)
[Out] int(1/cos(a + b*log(c*x^n))^(5/2), x)
```

3.121 $\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 1499
Rubi [A] (verified) 1499
Mathematica [A] (verified) 1500
Maple [B] (verified) 1500
Fricas [C] (verification not implemented) 1501
Sympy [F(-1)] 1502
Maxima [F] 1502
Giac [F(-1)] 1502
Mupad [B] (verification not implemented) 1502

Optimal result

Integrand size = 19, antiderivative size = 63

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn}+\frac{2\sin(a+b\log(cx^n))}{3bn\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2/3*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*Ellipti
cF(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/b/n+2/3*sin(a+b*ln(c*x^n))/b/n/cos(a
+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {2716, 2720}

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn}+\frac{2\sin(a+b\log(cx^n))}{3bn\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[1/(x*Cos[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (2*EllipticF[(a + b*Log[c*x^n])/2, 2])/(3*b*n) + (2*Sin[a + b*Log[c*x^n]])/
(3*b*n*Cos[a + b*Log[c*x^n]]^(3/2))
```

Rule 2716

```
Int[((b_.)*sin[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Sin[c + d*x])^(n + 1)/(b*d*(n + 1))), x] + Dist[(n + 2)/(b^2*(n + 1)), In
t[(b*Sin[c + d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] &&
IntegerQ[2*n]
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\cos^{\frac{5}{2}}(a+bx)}\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{2\sin(a+b\log(cx^n))}{3bn\cos^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx, x, \log(cx^n)\right)}{3n}\\ &= \frac{2\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn} + \frac{2\sin(a+b\log(cx^n))}{3bn\cos^{\frac{3}{2}}(a+b\log(cx^n))}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.16 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.86

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2\left(\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right) + \frac{\sin(a+b\log(cx^n))}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\right)}{3bn}$$

```
[In] Integrate[1/(x*Cos[a + b*Log[c*x^n]]^(5/2)),x]
[Out] (2*(EllipticF[(a + b*Log[c*x^n])/2, 2] + Sin[a + b*Log[c*x^n]]/Cos[a + b*Lo
g[c*x^n]]^(3/2)))/(3*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 290 vs. 2(93) = 186.

Time = 2.61 (sec) , antiderivative size = 291, normalized size of antiderivative = 4.62

method	result
derivativedivides	$-\frac{2\left(-2\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^{n}}\right)\right)}{2}}\,\sqrt{-1+2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\,\text{EllipticF}\left(\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right),\sqrt{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}\right.}{3n\sqrt{-2\sin\left(\frac{a}{2}+\right.}}$
default	$-\frac{2\left(-2\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^{n}}\right)\right)}{2}}\,\sqrt{-1+2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\,\text{EllipticF}\left(\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right),\sqrt{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}\right.}{3n\sqrt{-2\sin\left(\frac{a}{2}+\right.}}$

```
[In] int(1/x/cos(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)
```

```
[Out] -2/3/n*(-2*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*
x^n))^2)^(1/2)*EllipticF(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))*sin(1/2*a+1/2*
b*ln(c*x^n))^2-2*sin(1/2*a+1/2*b*ln(c*x^n))^2*cos(1/2*a+1/2*b*ln(c*x^n))+(s
in(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2
)*EllipticF(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2)))*((2*cos(1/2*a+1/2*b*ln(c*x
^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/(-2*sin(1/2*a+1/2*b*ln(c*x^n)
)^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^
(3/2)/sin(1/2*a+1/2*b*ln(c*x^n))/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 149, normalized size of antiderivative = 2.37

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{-i\sqrt{2}\cos(bn\log(x)+b\log(c)+a)^2\,\text{weierstrassPInverse}(-4,0,\cos(bn\log(x)+b\log(c)+a)+i\sin(bn$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] 1/3*(-I*sqrt(2)*cos(b*n*log(x) + b*log(c) + a)^2*weierstrassPInverse(-4, 0,
 cos(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a)) + I*sqr
t(2)*cos(b*n*log(x) + b*log(c) + a)^2*weierstrassPInverse(-4, 0, cos(b*n*lo
g(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)) + 2*sqrt(cos(b*n*l
og(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a))/(b*n*cos(b*n*log(x)
+ b*log(c) + a)^2)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cos(a+b*ln(c*x**n))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\cos(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(1/(x*cos(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cos(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.86 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.03

$$\int \frac{1}{x\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2\sin(a+b\ln(c\,x^n))\,{}_2\mathrm{F}_1\left(-\frac{3}{4},\frac{1}{2};\ \frac{1}{4};\ \cos(a+b\ln(c\,x^n))^2\right)}{3\,b\,n\cos(a+b\ln(c\,x^n))^{3/2}\,\sqrt{\sin(a+b\ln(c\,x^n))^2}}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))^(5/2)),x)
[Out] (2*sin(a + b*log(c*x^n))*hypergeom([-3/4, 1/2], 1/4, cos(a + b*log(c*x^n))^
2))/(3*b*n*cos(a + b*log(c*x^n))^(3/2)*(sin(a + b*log(c*x^n))^2)^(1/2))
```

3.122 $\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx$

Optimal result . . . 1503
Rubi [A] (verified) . . . 1503
Mathematica [A] (verified) . . . 1504
Maple [F] . . . 1504
Fricas [A] (verification not implemented) . . . 1505
Sympy [F] . . . 1505
Maxima [B] (verification not implemented) . . . 1505
Giac [F] . . . 1506
Mupad [B] (verification not implemented) . . . 1506

Optimal result

Integrand size = 15, antiderivative size = 48

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = -\frac{e^{-2ia}(1+c^4e^{2ia}x^4)}{2c^4x^3\cos^{\frac{3}{2}}(a-2i\log(cx))}$$

```
[Out] 1/2*(-1-c^4*exp(2*I*a)*x^4)/c^4/exp(2*I*a)/x^3/cos(a-2*I*ln(c*x))^(3/2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 48, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4572, 4570, 267}

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = -\frac{e^{-2ia}(1+e^{2ia}c^4x^4)}{2c^4x^3\cos^{\frac{3}{2}}(a-2i\log(cx))}$$

```
[In] Int[Cos[a - (2*I)*Log[c*x]]^(-3/2),x]
```

```
[Out] -1/2*(1 + c^4*E^((2*I)*a)*x^4)/(c^4*E^((2*I)*a)*x^3*Cos[a - (2*I)*Log[c*x]]
^(3/2))
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4570

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_), x_Symbol] :> Dist[Cos[d*(a + b
*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), Int[(1 + E^(2*I*
```

```
a*d)*x^(2*I*b*d))^p/x^(I*b*d*p), x], x] /; FreeQ[{a, b, d, p}, x] && !Inte
gerQ[p]
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(x))}\,dx, x, cx\right)}{c}\\ &= \frac{\left(1+c^4e^{2ia}x^4\right)^{3/2}\text{Subst}\left(\int \frac{x^3}{\left(1+e^{2ia}x^4\right)^{3/2}}\,dx, x, cx\right)}{c^4x^3\cos^{\frac{3}{2}}(a-2i\log(cx))}\\ &= -\frac{e^{-2ia}\left(1+c^4e^{2ia}x^4\right)}{2c^4x^3\cos^{\frac{3}{2}}(a-2i\log(cx))}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.15 (sec) , antiderivative size = 82, normalized size of antiderivative = 1.71

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = -\frac{x(\cos(a)-i\sin(a))\sqrt{\frac{2(1+c^4x^4)\cos(a)+2i(-1+c^4x^4)\sin(a)}{c^2x^2}}}{(1+c^4x^4)\cos(a)+i\left(-1+c^4x^4\right)\sin(a)}$$

```
[In] Integrate[Cos[a - (2*I)*Log[c*x]]^(-3/2),x]
[Out] -((x*(Cos[a] - I*Sin[a])*Sqrt[(2*(1 + c^4*x^4)*Cos[a] + (2*I)*(-1 + c^4*x^4
)*Sin[a])/(c^2*x^2)])/((1 + c^4*x^4)*Cos[a] + I*(-1 + c^4*x^4)*Sin[a]))
```

Maple [F]

$$\int \frac{1}{\cos\left(a-2i\ln\left(cx\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(1/cos(a-2*I*ln(c*x))^(3/2),x)
[Out] int(1/cos(a-2*I*ln(c*x))^(3/2),x)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.81

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = -\frac{2\sqrt{\frac{1}{2}}\sqrt{c^4x^4+e^{(-2i\,a)}}e^{\left(-\frac{3}{2}i\,a\right)}}{c^5x^4+ce^{(-2i\,a)}}$$

```
[In] integrate(1/cos(a-2*I*log(c*x))^(3/2),x, algorithm="fricas")
[Out] -2*sqrt(1/2)*sqrt(c^4*x^4 + e^(-2*I*a))*e^(-3/2*I*a)/(c^5*x^4 + c*e^(-2*I*a
))
```

Sympy [F]

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = \int \frac{1}{\cos^{\frac{3}{2}}\left(a-2i\log\left(cx\right)\right)}\,dx$$

```
[In] integrate(1/cos(a-2*I*ln(c*x))**(3/2),x)
[Out] Integral(cos(a - 2*I*log(c*x))**(-3/2), x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 187 vs. 2(36) = 72.

Time = 0.35 (sec) , antiderivative size = 187, normalized size of antiderivative = 3.90

$$\int \frac{1}{\cos^{\frac{3}{2}}(a-2i\log(cx))}\,dx = -\frac{\left(\left(\sqrt{2}\cos\left(\frac{3}{2}\,a\right)+i\sqrt{2}\sin\left(\frac{3}{2}\,a\right)\right)c^4x^4+\sqrt{2}\cos\left(\frac{1}{2}\,a\right)-i\sqrt{2}\sin\left(\frac{1}{2}\,a\right)\right)\cos\left(\frac{3}{2}\arctan\left(c^4x^4\sin\left(2\,a\right),c^4x^4\right.\right.}{\left(\left(\cos\left(2\,a\right)\right.\right.}$$

```
[In] integrate(1/cos(a-2*I*log(c*x))^(3/2),x, algorithm="maxima")
[Out] -(((sqrt(2)*cos(3/2*a) + I*sqrt(2)*sin(3/2*a))*c^4*x^4 + sqrt(2)*cos(1/2*a)
 - I*sqrt(2)*sin(1/2*a))*cos(3/2*arctan2(c^4*x^4*sin(2*a), c^4*x^4*cos(2*a)
 + 1)) + ((-I*sqrt(2)*cos(3/2*a) + sqrt(2)*sin(3/2*a))*c^4*x^4 - I*sqrt(2)*
cos(1/2*a) - sqrt(2)*sin(1/2*a))*sin(3/2*arctan2(c^4*x^4*sin(2*a), c^4*x^4*
cos(2*a) + 1)))/(((cos(2*a)^2 + sin(2*a)^2)*c^8*x^8 + 2*c^4*x^4*cos(2*a) +
1)^(3/4)*c)
```

Giac [F]

$$\int \frac{1}{\cos^{\frac{3}{2}}(a - 2i\log(cx))}\,dx = \int \frac{1}{\cos\left(a - 2i\,\log\left(cx\right)\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/cos(a-2*I*log(c*x))^(3/2),x, algorithm="giac")
[Out] integrate(cos(a - 2*I*log(c*x))^(-3/2), x)
```

Mupad [B] (verification not implemented)

Time = 27.88 (sec) , antiderivative size = 48, normalized size of antiderivative = 1.00

$$\int \frac{1}{\cos^{\frac{3}{2}}(a - 2i\log(cx))}\,dx = -\frac{2\,x\,\sqrt{\frac{\mathrm{e}^{-a\,1\mathrm{i}}}{2\,c^2\,x^2} + \frac{c^2\,x^2\,\mathrm{e}^{a\,1\mathrm{i}}}{2}}}{\mathrm{e}^{a\,2\mathrm{i}}\,c^4\,x^4 + 1}$$

```
[In] int(1/cos(a - log(c*x)*2i)^(3/2),x)
[Out] -(2*x*(exp(-a*1i)/(2*c^2*x^2) + (c^2*x^2*exp(a*1i))/2)^(1/2))/(c^4*x^4*exp(
a*2i) + 1)
```

3.123 $\int x^m \cos^4(a+b\log(cx^n))\,dx$

Optimal result 1507
Rubi [A] (verified) 1508
Mathematica [A] (verified) 1509
Maple [A] (verified) 1510
Fricas [A] (verification not implemented) 1510
Sympy [F(-1)] 1511
Maxima [B] (verification not implemented) 1511
Giac [B] (verification not implemented) 1514
Mupad [B] (verification not implemented) 1670

Optimal result

Integrand size = 17, antiderivative size = 266

$$\begin{aligned}\int x^m \cos^4(a+b\log(cx^n))\,dx &= \frac{24b^4n^4x^{1+m}}{(1+m)\left((1+m)^2+4b^2n^2\right)\left((1+m)^2+16b^2n^2\right)} \\ &+ \frac{12b^2(1+m)n^2x^{1+m}\cos^2(a+b\log(cx^n))}{\left((1+m)^2+4b^2n^2\right)\left((1+m)^2+16b^2n^2\right)} \\ &+ \frac{(1+m)x^{1+m}\cos^4(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &+ \frac{24b^3n^3x^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{\left((1+m)^2+4b^2n^2\right)\left((1+m)^2+16b^2n^2\right)} \\ &+ \frac{4bnx^{1+m}\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+16b^2n^2}\end{aligned}$$

```
[Out] 24*b^4*n^4*x^(1+m)/(1+m)/((1+m)^2+4*b^2*n^2)/((1+m)^2+16*b^2*n^2)+12*b^2*(1
+m)*n^2*x^(1+m)*cos(a+b*ln(c*x^n))^2/((1+m)^2+4*b^2*n^2)/((1+m)^2+16*b^2*n^
2)+(1+m)*x^(1+m)*cos(a+b*ln(c*x^n))^4/((1+m)^2+16*b^2*n^2)+24*b^3*n^3*x^(1+
m)*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))/((1+m)^2+4*b^2*n^2)/((1+m)^2+16*b^
2*n^2)+4*b*n*x^(1+m)*cos(a+b*ln(c*x^n))^3*sin(a+b*ln(c*x^n))/((1+m)^2+16*b^
2*n^2)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 260, normalized size of antiderivative = 0.98, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 30}

$$\begin{aligned}\int x^m \cos^4(a+b\log(cx^n))\,dx = &\frac{(m+1)x^{m+1}\cos^4(a+b\log(cx^n))}{16b^2n^2+(m+1)^2}\\ &+\frac{4bnx^{m+1}\sin(a+b\log(cx^n))\cos^3(a+b\log(cx^n))}{16b^2n^2+(m+1)^2}\\ &+\frac{12b^2(m+1)n^2x^{m+1}\cos^2(a+b\log(cx^n))}{64b^4n^4+20b^2(m+1)^2n^2+(m+1)^4}\\ &+\frac{24b^3n^3x^{m+1}\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{64b^4n^4+20b^2(m+1)^2n^2+(m+1)^4}\\ &+\frac{24b^4n^4x^{m+1}}{(m+1)\left(4b^2n^2+(m+1)^2\right)\left(16b^2n^2+(m+1)^2\right)}\end{aligned}$$

```
[In] Int[x^m*Cos[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (24*b^4*n^4*x^(1 + m))/((1 + m)*((1 + m)^2 + 4*b^2*n^2)*((1 + m)^2 + 16*b^2
*n^2)) + (12*b^2*(1 + m)*n^2*x^(1 + m)*Cos[a + b*Log[c*x^n]]^2)/((1 + m)^4
+ 20*b^2*(1 + m)^2*n^2 + 64*b^4*n^4) + ((1 + m)*x^(1 + m)*Cos[a + b*Log[c*x
^n]]^4)/((1 + m)^2 + 16*b^2*n^2) + (24*b^3*n^3*x^(1 + m)*Cos[a + b*Log[c*x^
n]]*Sin[a + b*Log[c*x^n]])/((1 + m)^4 + 20*b^2*(1 + m)^2*n^2 + 64*b^4*n^4)
+ (4*b*n*x^(1 + m)*Cos[a + b*Log[c*x^n]]^3*Sin[a + b*Log[c*x^n]])/((1 + m)^
2 + 16*b^2*n^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(1+m)x^{1+m}\cos^4(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &\quad+\frac{4bnx^{1+m}\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &\quad+\frac{(12b^2n^2)\int x^m\cos^2(a+b\log(cx^n))\,dx}{(1+m)^2+16b^2n^2} \\ &= \frac{12b^2(1+m)n^2x^{1+m}\cos^2(a+b\log(cx^n))}{(1+m)^4+20b^2(1+m)^2n^2+64b^4n^4}+\frac{(1+m)x^{1+m}\cos^4(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &\quad+\frac{24b^3n^3x^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^4+20b^2(1+m)^2n^2+64b^4n^4} \\ &\quad+\frac{4bnx^{1+m}\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &\quad+\frac{(24b^4n^4)\int x^m\,dx}{(1+m)^4+20b^2(1+m)^2n^2+64b^4n^4} \\ &= \frac{24b^4n^4x^{1+m}}{(1+m)\left((1+m)^4+20b^2(1+m)^2n^2+64b^4n^4\right)} \\ &\quad+\frac{12b^2(1+m)n^2x^{1+m}\cos^2(a+b\log(cx^n))}{(1+m)^4+20b^2(1+m)^2n^2+64b^4n^4}+\frac{(1+m)x^{1+m}\cos^4(a+b\log(cx^n))}{(1+m)^2+16b^2n^2} \\ &\quad+\frac{24b^3n^3x^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^4+20b^2(1+m)^2n^2+64b^4n^4} \\ &\quad+\frac{4bnx^{1+m}\cos^3(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+16b^2n^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 3.06 (sec) , antiderivative size = 312, normalized size of antiderivative = 1.17

$$\int x^m\cos^4(a+b\log(cx^n))\,dx = \frac{1}{8}x^{1+m}\Bigg(\frac{3}{1+m}$$
$$-\frac{4\sin(2bn\log(x))\left(-2bn\cos(2(a-bn\log(x)+b\log(cx^n)))+(1+m)\sin(2(a-bn\log(x)+b\log(cx^n)\right.}{1+2m+m^2+4b^2n^2}$$
$$+\frac{4\cos(2bn\log(x))\left((1+m)\cos(2(a-bn\log(x)+b\log(cx^n)))+2bn\sin(2(a-bn\log(x)+b\log(cx^n)))\right.}{1+2m+m^2+4b^2n^2}$$
$$-\frac{\sin(4bn\log(x))\left(-4bn\cos(4(a-bn\log(x)+b\log(cx^n)))+(1+m)\sin(4(a-bn\log(x)+b\log(cx^n)))\right.}{1+2m+m^2+16b^2n^2}$$
$$+\frac{\cos(4bn\log(x))\left((1+m)\cos(4(a-bn\log(x)+b\log(cx^n)))+4bn\sin(4(a-bn\log(x)+b\log(cx^n)))\right)}{1+2m+m^2+16b^2n^2}$$

```
[In] Integrate[x^m*Cos[a + b*Log[c*x^n]]^4,x]
```

[Out] (x^(1 + m)*(3/(1 + m) - (4*Sin[2*b*n*Log[x]]*(-2*b*n*Cos[2*(a - b*n*Log[x] + b*Log[c*x^n])] + (1 + m)*Sin[2*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 4*b^2*n^2) + (4*Cos[2*b*n*Log[x]]*((1 + m)*Cos[2*(a - b*n*Log[x] + b*Log[c*x^n])] + 2*b*n*Sin[2*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 4*b^2*n^2) - (Sin[4*b*n*Log[x]]*(-4*b*n*Cos[4*(a - b*n*Log[x] + b*Log[c*x^n])] + (1 + m)*Sin[4*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 16*b^2*n^2) + (Cos[4*b*n*Log[x]]*((1 + m)*Cos[4*(a - b*n*Log[x] + b*Log[c*x^n])] + 4*b*n*Sin[4*(a - b*n*Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 16*b^2*n^2)))/8

Maple [A] (verified)

Time = 127.38 (sec) , antiderivative size = 222, normalized size of antiderivative = 0.83

method	result
parallelrisch	$\frac{\left((1+m)^2\left(b^2n^2+\frac{1}{16}m^2+\frac{1}{8}m+\frac{1}{16}\right)\cos(2b\ln(c\,x^n)+2a)+\frac{(1+m)^2\left(b^2n^2+\frac{1}{4}m^2+\frac{1}{2}m+\frac{1}{4}\right)\cos(4b\ln(c\,x^n)+4a)}{16}+2(1+m)bn\left(b^2n^2+\frac{1}{16}\right.\right.}{8(1+m)\left(b^2n^2+\frac{1}{16}m^2+\frac{1}{8}m+\frac{1}{16}\right)}$

[In] int(x^m*cos(a+b*ln(c*x^n))^4,x,method=_RETURNVERBOSE)

[Out] 1/8*((1+m)^2*(b^2*n^2+1/16*m^2+1/8*m+1/16)*cos(2*b*ln(c*x^n)+2*a)+1/16*(1+m)^2*(b^2*n^2+1/4*m^2+1/2*m+1/4)*cos(4*b*ln(c*x^n)+4*a)+2*(1+m)*b*n*(b^2*n^2+1/16*m^2+1/8*m+1/16)*sin(2*b*ln(c*x^n)+2*a)+1/4*((1+m)*b*n*sin(4*b*ln(c*x^n)+4*a)+12*b^2*n^2+3/4*m^2+3/2*m+3/4)*(b^2*n^2+1/4*m^2+1/2*m+1/4))*x^(1+m)/(1+m)/(b^2*n^2+1/16*m^2+1/8*m+1/16)/(b^2*n^2+1/4*m^2+1/2*m+1/4)

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 273, normalized size of antiderivative = 1.03

$$\int x^m\cos^4(a+b\log(cx^n))\,dx = \frac{4\left(6\left(b^3m+b^3\right)n^3x\cos(bn\log(x)+b\log(c)+a)+\left(4\left(b^3m+b^3\right)n^3+\left(bm^3+3\,bm^2+3\,bm+b\right)n\right)x\cos(bn\right.}{}$$

[In] integrate(x^m*cos(a+b*log(c*x^n))^4,x, algorithm="fricas")

[Out] (4*(6*(b^3*m + b^3)*n^3*x*cos(b*n*log(x) + b*log(c) + a) + (4*(b^3*m + b^3)*n^3 + (b*m^3 + 3*b*m^2 + 3*b*m + b)*n)*x*cos(b*n*log(x) + b*log(c) + a)^3)*x^m*sin(b*n*log(x) + b*log(c) + a) + (24*b^4*n^4*x + 12*(b^2*m^2 + 2*b^2*m + b^2)*n^2*x*cos(b*n*log(x) + b*log(c) + a)^2 + (m^4 + 4*m^3 + 4*(b^2*m^2 + 2*b^2*m + b^2)*n^2 + 6*m^2 + 4*m + 1)*x*cos(b*n*log(x) + b*log(c) + a)^4)*x^m)/(m^5 + 64*(b^4*m + b^4)*n^4 + 5*m^4 + 10*m^3 + 20*(b^2*m^3 + 3*b^2*m^2 + 3*b^2*m + b^2)*n^2 + 10*m^2 + 5*m + 1)

Sympy [F(-1)]

Timed out.

$$\int x^m \cos^4(a + b\log(cx^n))\, dx = \text{Timed out}$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n))**4,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 3537 vs. 2(266) = 532.

Time = 0.43 (sec) , antiderivative size = 3537, normalized size of antiderivative = 13.30

$$\int x^m \cos^4(a + b\log(cx^n))\, dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^4,x, algorithm="maxima")
```

```
[Out] 1/16*(((cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)) +
 cos(4*b*log(c)))*m^4 + 4*(cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c)
)*sin(4*b*log(c)) + cos(4*b*log(c)))*m^3 + 16*(b^3*cos(4*b*log(c))*sin(8*b*
log(c)) - b^3*cos(8*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c)) + (b^3*
cos(4*b*log(c))*sin(8*b*log(c)) - b^3*cos(8*b*log(c))*sin(4*b*log(c)) + b^3
*sin(4*b*log(c)))*m)*n^3 + 6*(cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log
(c))*sin(4*b*log(c)) + cos(4*b*log(c)))*m^2 + 4*(b^2*cos(8*b*log(c))*cos(4*
b*log(c)) + b^2*sin(8*b*log(c))*sin(4*b*log(c)) + (b^2*cos(8*b*log(c))*cos(
4*b*log(c)) + b^2*sin(8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*m^
2 + b^2*cos(4*b*log(c)) + 2*(b^2*cos(8*b*log(c))*cos(4*b*log(c)) + b^2*sin(
8*b*log(c))*sin(4*b*log(c)) + b^2*cos(4*b*log(c)))*m)*n^2 + 4*(cos(8*b*log(
c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c)))*m
+ 4*((b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c))
 + b*sin(4*b*log(c)))*m^3 + 3*(b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*
b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c)))*m^2 + b*cos(4*b*log(c))*sin(
8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + 3*(b*cos(4*b*log(c))*sin(
8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log(c)))*m + b*
sin(4*b*log(c)))*n + cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(
4*b*log(c)) + cos(4*b*log(c)))*x*x^m*cos(4*b*log(x^n) + 4*a) + 4*((cos(6*b*
log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))
*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*m^4 + 4*(cos(6*b*log(c)
)*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(4
*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*m^3 + 32*(b^3*cos(4*b*log(c))
*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b*log(c)
)*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)) + (b^3*cos(4*b*log(
```

```
c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)) + b^3*cos(2*b*log
(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*m)*n^3 + 6*(cos
(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c)) + sin(6*b*lo
g(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*m^2 + 16*(b^2*cos(
6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin
(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)) + (b^2*c
os(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*
sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*m^2
+ 2*(b^2*cos(6*b*log(c))*cos(4*b*log(c)) + b^2*cos(4*b*log(c))*cos(2*b*log(
c)) + b^2*sin(6*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log
(c)))*m)*n^2 + 4*(cos(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b
*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)
))*m + 2*((b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*lo
g(c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c
)))*m^3 + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*
log(c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log
(c)))*m^2 + b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*l
og(c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(
c)) + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(
c)) + b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c))
)*m)*n + cos(6*b*log(c))*cos(4*b*log(c)) + cos(4*b*log(c))*cos(2*b*log(c))
+ sin(6*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x*x^m*
cos(2*b*log(x^n) + 2*a) - ((cos(4*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c
))*sin(4*b*log(c)) + sin(4*b*log(c)))*m^4 + 4*(cos(4*b*log(c))*sin(8*b*log(
c)) - cos(8*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c)))*m^3 - 16*(b^3*cos(
8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*log(c))*sin(4*b*log(c)) + b^3*cos
(4*b*log(c)) + (b^3*cos(8*b*log(c))*cos(4*b*log(c)) + b^3*sin(8*b*log(c))*s
in(4*b*log(c)) + b^3*cos(4*b*log(c)))*m)*n^3 + 6*(cos(4*b*log(c))*sin(8*b*l
og(c)) - cos(8*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c)))*m^2 + 4*(b^2*co
s(4*b*log(c))*sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + (b^2*
cos(4*b*log(c))*sin(8*b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2
*sin(4*b*log(c)))*m^2 + b^2*sin(4*b*log(c)) + 2*(b^2*cos(4*b*log(c))*sin(8*
b*log(c)) - b^2*cos(8*b*log(c))*sin(4*b*log(c)) + b^2*sin(4*b*log(c)))*m)*n
^2 + 4*(cos(4*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)) +
 sin(4*b*log(c)))*m - 4*((b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log
(c))*sin(4*b*log(c)) + b*cos(4*b*log(c)))*m^3 + 3*(b*cos(8*b*log(c))*cos(4*
b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c)) + b*cos(4*b*log(c)))*m^2 + b*
cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c)) + 3*(b*
cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c)) + b*cos
(4*b*log(c)))*m + b*cos(4*b*log(c)))*n + cos(4*b*log(c))*sin(8*b*log(c)) -
cos(8*b*log(c))*sin(4*b*log(c)) + sin(4*b*log(c)))*x*x^m*sin(4*b*log(x^n) +
 4*a) - 4*((cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c
)) + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*m^4
 + 4*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)) + c
os(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*m^3 - 32*
```

```
(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c))
+ b^3*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c))
 + (b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*cos(4*b*log(c))*cos(2*b*log(c
)) + b^3*sin(6*b*log(c))*sin(4*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(
c)))*m)*n^3 + 6*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*
log(c)) + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c))
)*m^2 + 16*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(4
*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(
2*b*log(c)) + (b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*si
n(4*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*s
in(2*b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*
log(c))*sin(4*b*log(c)) + b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b
*log(c))*sin(2*b*log(c)))*m)*n^2 + 4*(cos(4*b*log(c))*sin(6*b*log(c)) - cos
(6*b*log(c))*sin(4*b*log(c)) + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*lo
g(c))*sin(2*b*log(c)))*m - 2*((b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*
b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*l
og(c))*sin(2*b*log(c)))*m^3 + 3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(
4*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b
*log(c))*sin(2*b*log(c)))*m^2 + b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4
*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*
log(c))*sin(2*b*log(c)) + 3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*cos(4*b*
log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)) + b*sin(4*b*log
(c))*sin(2*b*log(c)))*m)*n + cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(
c))*sin(4*b*log(c)) + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin
(2*b*log(c)))*x*x^m*sin(2*b*log(x^n) + 2*a) + 6*((cos(4*b*log(c))^2 + sin(4
*b*log(c))^2)*m^4 + 64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4
+ 4*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*m^3 + 6*(cos(4*b*log(c))^2 + si
n(4*b*log(c))^2)*m^2 + 20*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2 +
(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*m^2 + 2*(b^2*cos(4*b*log(c)
)^2 + b^2*sin(4*b*log(c))^2)*m)*n^2 + 4*(cos(4*b*log(c))^2 + sin(4*b*log(c)
)^2)*m + cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*x*x^m)/((cos(4*b*log(c))^2
+ sin(4*b*log(c))^2)*m^5 + 5*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*m^4 +
64*(b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2 + (b^4*cos(4*b*log(c))^2
+ b^4*sin(4*b*log(c))^2)*m)*n^4 + 10*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2
)*m^3 + 10*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*m^2 + 20*((b^2*cos(4*b*l
og(c))^2 + b^2*sin(4*b*log(c))^2)*m^3 + b^2*cos(4*b*log(c))^2 + b^2*sin(4*b
*log(c))^2 + 3*(b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*m^2 + 3*(b^2
*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*m)*n^2 + 5*(cos(4*b*log(c))^2 +
 sin(4*b*log(c))^2)*m + cos(4*b*log(c))^2 + sin(4*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 225232 vs. $2(266) = 532$.

Time = 6.15 (sec) , antiderivative size = 225232, normalized size of antiderivative = 846.74

$$\int x^m \cos^4(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^4,x, algorithm="giac")
```

```
[Out] -1/16*(384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)
- 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 32*b^3*m*n^3*
x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256
*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs
(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
```

)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)
^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*b^2*m
^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 384*b^4*n^4*
x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 256*b^3*n^
3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2*tan(a) + 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(2*a)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*ta
n(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
^2 + 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -

1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs

(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3
*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*
b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 256*b^3*m*n^3*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*
tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(2*a)^2*tan(a) - 1024*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)^2*tan(a) + 1024*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 25
6*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 256*b^2*m^2*n^2*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 256*b^3*m*n^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*

log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*

tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 1
28*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 128*b^3*m*n^3
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^
m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*
a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*s
gn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)
^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*
b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(

c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) *tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2 *x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b *n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2* tan(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log (abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m *e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2 *b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^ 2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n *sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^3* m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n* log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 *tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^2*m^2*n^ 2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*p i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/ 4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x) ^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b* log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^ 3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n *log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2* tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b* sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sg n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a bs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi *m)*tan(2*a)^2*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2 *pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))* tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi *b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a

)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*m^3*n*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*m^
2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*m*n^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^
2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*b*m^3*n*x*ab
s(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^2*
m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2
*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*p

i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 +
 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(
a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 38
4*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 32*b^3*n^3*
x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a) - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*
n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^
3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t

an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 384*b^4*n^4*x*abs(x)^m*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*n^3*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^
3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(2*a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 128
*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) +
256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2*tan(a) - 1024*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
 + 1024*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 512*b^2*m*n^2*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x

)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 512*b^2*m*n^2*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2*tan(a) - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 256*b^
3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b

*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 +
 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)
^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 128*b^2*m*n^2*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3
*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 128*b^3*n^3*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 128*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(
a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^
2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan

(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 512*b^2*m*n^2

```
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*n
^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*t
an(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 48*b*m^2*
n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n
^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 8*b^2*
m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 8*b^2*m*
n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
```

an(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2*tan(a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*ta
n(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*b
*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*b*m^2*n*x*ab
s(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)
^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m^3*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32
*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*

b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^3*m*n^3*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 256*b^3*m*n^3*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^
3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 64*b^2*m^2*n^2*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*
b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 128*b^3*m*n^3*x*abs(x)^m*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a) + 128*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*m^2*
n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b^3*m*n^3*x*abs(x)^m*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +

2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^3*m*n ^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta n(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn (c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b *n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4 *pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n *sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4 *pi*m)^2*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b* n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b* n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log (abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*m^3*n*x*abs(x) ^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4* pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn (x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) ^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x) ^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 + 32*b^ 3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)* tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*lo g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi* b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b *log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2* m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b* n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t an(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn (c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*m*n^3*x*a bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l og(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)* tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)* tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn (c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi *b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b* sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log (abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 1024*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 1024*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*

a)^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*
b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^2*m^2*n
^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*t
an(a) - 1024*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a) + 1024*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 64*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
^2*tan(a) + 64*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^2*m^
2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan
(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 25
6*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2
*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 256*b^3*m*n^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 16*b*m^3*n*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) -
256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*

tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*m^4*x*abs
(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
+ 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*m^2*n^2
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*

b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi

*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 -
256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a
)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^
m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*m^2*n^2*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 +
8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a
)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m^4*x*abs(x)^
m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4
*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m

)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*n^2*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*s
gn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*t
an(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 +
8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 128*b^3*m*n^3*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan
(a)^2 + 128*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*
x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b*m^3*n*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b*m^3*n*x*abs(x)^m*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a

)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*

m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*
a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 1
6*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*t
an(2*a)^2*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(
a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 +
8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 240*b^2*m*n^2*x*
abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(
a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a

```
bs(c)))^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 2
56*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(2*a)^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
^2*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*m^
3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2
 + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(2*a)^2*tan(a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*
tan(a)^2 + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*m^4*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
```

2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*m
^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*
a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16
*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 48*
b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(
a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^
2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 -
8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2*tan(a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + m
^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*

```
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2
 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 240
*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x
)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)
^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4
*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
```

(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*ta
n(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*
m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2
 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^2*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^3*n^3*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 384*b^4*n^4*x*abs(x
)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2 + 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log

(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 128*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 128*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta n(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan

(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*b*m^2*n*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 24*b*m^2*n*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 384*b^4*n^4*x*abs(x)^m*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 120*
b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 128*b^2*m*n^2*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 128*b
^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 120*b^2*m^2*n^2
*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
 + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*

```
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24
*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24*b*m^2*n*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 16*m^3*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2
 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(a) - 1024*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n
*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 1024
*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^3*n^3*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 256*b^3*n^
3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 51
2*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
```

2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) *tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi *b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p i*m)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn (c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/ 4*pi*m)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b *sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi *b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m^ 2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn (x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) ^2*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*t an(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo g(abs(c)))*tan(2*a)^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta n(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs(x) ^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b* log(abs(c)))^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^ 2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 512*b^2*m*n^2* x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(ab s(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi* b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi* m)*tan(2*a)^2*tan(a) - 1024*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 1024*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/ 4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 192*b*m^2*n*x*abs(x)^m*e^(pi* b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi *m)*tan(2*a)^2*tan(a) + 192*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log (abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)

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*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(2*a)^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*ta
n(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 512*b^2*m*n^2*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 64
*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a) - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(
```

-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1

/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 384*b^4*n^4*
x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^
3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 128*b^2*
m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2
 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 120*b^2*m^2*n^2*x*a
bs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m^2*n*x*abs
(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab

s(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 128*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 128*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n

- 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 96*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(2*a)*tan(a)^2 + 96*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*m
^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^
m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b
*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 24*b*m^
2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16
*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(2*a)^2*tan(a)^2 + 32*b
^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n

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*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 120*b^2*m^2*n^2*x*abs
(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b^
2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 128*b^2*m*
n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2
*a)^2*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 48
*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*ta
n(2*a)^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x
)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a
)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*m^4*x*
abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan
(a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
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2*a)^2*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 256*b^3
*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(2*a)^2*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 32*b^2*m*n^2*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2
 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m^2*n*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
^2*tan(a)^2 + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a)^2 - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)^2*tan(a)^2 - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m
^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*m^3*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan

(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*n*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)^2*tan(a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2
- 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*b*m^
2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 120*b^2*n^2*x*a
bs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(

1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b
*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m^3*x*abs(x)
^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)
^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 8*b*n*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*
a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 256*b^3*m*n^3*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*m*n^3*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 32*b^3*m*n
^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
- 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(

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-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*m*n^3
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b
^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b
^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b
^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m) + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
) - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sg
n(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b^2*m^2*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m) - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b*m
^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*b*m^3*
n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*m^2*n^2*x*abs(x)^m
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*m^2*n^2
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*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*m^2*
n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*m
^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*
b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b^2
*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 -
 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 -
64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 64*b^2*n^2*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 64*b^2*n^2*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
```

1/4*pi*m)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 32*b^
3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^3*m*n^3*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(2*a) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 16*b^2*m^2*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
+ 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 128*b^3*m*n^3*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 128*b^3*m*n^3*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) +
16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*m^2*n^2*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b*m^3*
n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a) + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*n
^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^

2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -

pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*m^2*n^
2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^
2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*m^3*
n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)
^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*m^2*n
^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 +
8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(2*a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4
*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(2*a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 32*b^3*m*
n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n

*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +

b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 4*m^4*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48*b*m
*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 4*b^2*m^2*n
^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*m^2*n^2*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 240*b
^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m^4*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*
n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2
+ 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +

2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*m^3*n*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m*n*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 +
240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^4*x*abs(x)^m*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*n^2*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^4*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 64*b^2*n^2
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - m^4
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24*
b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^3*x*abs(x)^m*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24*m^
2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(

x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 256*b^
3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*m^2*n^2*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 2
56*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 1024*b^3*m*n^3*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x
)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 1024*b^3*m*n^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 64*b*m^3*n*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(a) + 64*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256
*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)
- 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(a) - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 256*b^2*n^2*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg

n(x) - 1/4*pi*m)*tan(a) + 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 256*b^3*
m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*m^4*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*m^4*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) -
 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)
 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^
m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(2*a)^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a
) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*m^4*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)
 + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c

)))*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*b*m^3*n*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 256*b^2*m^2*
n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 6
4*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*t
an(a) + 64*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2*tan(a) - 192*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 192*b*
m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 16*m^4*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 25
6*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^
2*tan(a) + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab

s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) +
48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(2*a)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a) - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 + 4*b^
2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*m^2*n^2*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 2
56*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))

+ b*log(abs(c)))*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(

abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*
b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2
 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(a)^2 + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 2
56*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(a)^2 - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b*m^3*n*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b*m^3*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*m^3*
n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2
 - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b
^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs

(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m*n
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*m^2*
n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2
 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*m^3
*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*
e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^4*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*
b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)
^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 240*b^2*m*n^2*

x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi *b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 96*b*m*n*x

*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 96*b*m*n*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(2*a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2
*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 8
*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^
m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2
 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*b*m
*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*
e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 64
*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(2*a)^2*tan(a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +

2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))*tan(2*a)^2*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2
*a)^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*t
an(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*m^3*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 48*b*m*n*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*t
an(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m^4*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 -
64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*s
gn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab

s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*
tan(a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*
e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*t
an(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^
2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*m^3*n*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*ta
n(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 4*m^4*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*ta
n(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 +
24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2
+ 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*t
an(a)^2 + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(2*a)^2*tan(a)^2 - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)^2*tan(a)^2 - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*

m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)^2*tan(a)^2 - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*b*m
*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^
2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a
)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m^4*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 64*b^2*n^2*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*
b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*

pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 384*b^4*n^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*

pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 32*b^3*n^3*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^3*n^
3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b^3*n^3*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^3*n^3*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 512*b^2
*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^3*
n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b^
3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^3*n^3*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 32*b^3*n^3*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 32*b^2*m*n^2*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 2
4*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) + 384*b^4*n^4*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^

3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*

n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 16*m^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 32*b
^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 32*b^2*
m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 24*b*m^2*n*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
) - 128*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a) + 128*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b^2*m*n^
2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) +
 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a) - 96*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 96*b*m^2*n
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(2*a) - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(

x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 384*b^4*n^4*x*abs(x)^m*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t an(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x

) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 512*b^2*m*n^2*x*abs(x)^
m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 512*b^2*m*n^2*x*ab
s(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 64*m^3*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2 + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 24*b
*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2
*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*p
i*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^
2 - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*n*x*abs(x)^m*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*
b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a)^2 + 120*b^2*m^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 128*b^2*
m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24*b*m^2*n*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 -

24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 120*b^2*n^2*x*abs(x)^m*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m^2*n*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*n*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6
*m^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^3*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 16*m^
3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 16*
m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 -
4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*n*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan

(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 1024*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 1024*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 192*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 192*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*

sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(a) + 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 512*b^2*m*n^2*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 512*b^2*m*n^2
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 64*m^3*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*
m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*
b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) -
16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(a) - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*a)^2*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*t
an(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 512*b^2*m*n^
2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)
+ 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(

-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 51
2*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 192*b*m^2*n*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 192*b*m^2*n*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 64*b*n*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2
*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(2*a)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
 - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(2*a)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) +
 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*
a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a) - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*lo

g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*b*n*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 1
6*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*
tan(a) - 384*b^4*n^4*x*abs(x)^m*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^
2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 128*b^2
*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
a)^2 + 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 256*b^3*n^3*x*abs(x)^m*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 120*b^2*m^2*n^2*x*abs(x)^m*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 12
8*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 6*m^4*x*a
bs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*m^3*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)

```
 + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(a)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^3*n^3*x*abs(x)^
m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 32*b^2*m*
n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)
^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 512*b^2*m*n^2
*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 512*b^2*m*
n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 64*m^3
*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n
*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24
*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m
^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
```

*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b*n*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 1
20*b^2*m^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b^
2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^4*x*abs(x)
^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m^3*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m^3*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m
^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(

b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)
^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*n*
x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 32*b^3*
n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*a)*tan(a)^2 - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi
*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))*tan(2*a)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*
a)*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a
)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 24*b*m^
2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*m^3*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)
^2 + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(a

bs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a
)^2 - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b^2*m*n^2
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 96*b*m^2*n*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 96*b*m^2
*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*
a)*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m^3*
x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*ta
n(a)^2 - 32*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b*n*x*a
bs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*t
an(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 24*b*m^2
*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*m^3
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*
a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2

*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*
n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*m*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 120*b^2*m^2*n^2*x*abs(x)
^m*tan(2*a)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 128*
b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2
*a)^2*tan(a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(2*a)^2*tan(a)^2 - 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*
a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*
m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 48*b*m^2*n*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*t
an(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 6*m^4*x*abs(x)^m*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 120*b^2*n^2*x*
abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*m^3
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*ta

n(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) +

pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^
2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*m*x*abs
(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log
(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*ta
n(a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*ta
n(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(

abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c))) - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) + 4*b^2*m^
2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*b^2*m^2*n^2*x*ab
s(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2 - 256*b^3*m*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 256*
b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c))) - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c))) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*m^2*n^2*x*abs(x)^
m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b*m^3*n*
x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8
*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*m^4*x*abs(x)^m

*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*m^4*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + m^4*x*ab
s(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*
b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2 + 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sg
n(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^3*m*n^3*x*abs(x)^m*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m) - 256*b^3*m*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m) + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*p
i*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
 pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b^2*n^2*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*
b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*

tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16
*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b*m^3*
n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 8*b*m^3*n*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*m^4*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m) - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*m^4*x*ab
s(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m) + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b
*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*
b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) +
4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(
x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n

*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 48*b*m*n
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*b*m*n*x*
abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*s
gn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 24*m^2*x*abs(x)^

m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 32*b^3*m*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 32*b^3*m*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 16*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))

^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 96*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 96*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*s

gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a) - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b
*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 4*b^2*m
^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*a)^2 - 64*b^2*m^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + 4*b^2*m^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*
sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(2*a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(2*a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*m^4*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2
*a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 64*b^2*n^2*x*abs(x)^
m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b
*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 16*b*m
^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))*tan(2*a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*m^4*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 +
 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*

n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*b^2*n^2
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*b*m*n*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*m^2*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2
+ 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 4*m^4*x*abs(x)^m
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b^2*
n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*
a)^2 - 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*p
i*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 24*b*m*n*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 1
6*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 256

```
*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n
*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 +
16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 2
56*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2
 - 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 96*m^2*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 240*b^2*m*n^2*
x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - m^4*x*abs(x)^m*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 +
4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*b^2*n^2*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^3*x*abs(x)^m
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
```

(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn
(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m*n*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 48*b*m*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^3*x*abs(x
)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
 + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 256*b^3*m*n^3*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 256*b^3*m*
n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) - 16
*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(a) + 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*m^2
*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*s

```
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 256*b^2*n^2*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*b*m^
3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
a) + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(a) - 256*b^2*m^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*m^
2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 64*b*m^3*n*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 192*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(a) + 192*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(a) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
```

an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a) + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*m^4*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*n^2*x*abs(x)^
m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*m^4*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 256*b^2*n^2*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m*n*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*b*m^3*n*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 1
6*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2
*a)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) - 48*b
*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a
) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 256*b^2*n^2*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(2*a)^2*tan(a) + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
 + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 96*m^2*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 48*b*m*n*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sg

n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a)^2*tan(a) - 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 256*b^2*n^2*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(
a) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 96*m^2*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
 - 192*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2
*tan(a) + 192*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(2*a)^2*tan(a) + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(
a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 96*
m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a
) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2*tan(a) - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 64*b^2*m^2*n^2*x*abs(x)^m*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 64*b^2*m^2*n^2*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 4*b^2*m
^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 8*b*m^3*n*

x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log (abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x

) - 1/4*pi*m)*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 240*b^2*m*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*

sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m*x*abs(x)
^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 8*b*
m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*ta
n(2*a)*tan(a)^2 - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*p
i*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*
a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 1
6*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 24*b*m*n*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^
(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(2*a)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*
b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 4*m^4*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta

n(2*a)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 96*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 96*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m*tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*

a)^2*tan(a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*ta
n(2*a)^2*tan(a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n
+ 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*
a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 24*
m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*ta
n(2*a)^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 24
*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
+ 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 -
24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(
a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a)^2*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 48*
b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-2*pi*b*n

*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 96*m^2*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 96*
m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)
^2 + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*x*abs(x)^m*e^(-pi*b*n
*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 -
 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 24*m^3*x*abs(x)^m*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)
^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2*tan(a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 24*m*x*abs(x)^m*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 384*b^4*n^4*x*abs(x)^m -

32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 32*b^3*n^3*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c))) - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 128*b^2*m*
n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
+ 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 256*b^3*n^3*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c))) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 48*b*m^2*n*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 48*b*m^2*n*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))) - 120*b^2*m^2*n^2*x*abs(
x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*p
i*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*s
gn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 128*b^2*m*n^2*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 24*b*m^2*
n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 -
 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 - 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*m^3
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
+ 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
+ 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2 + 32*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn
(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 256*b^3*n^3*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
 - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)

+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 120*b^2*m^2*n^2*x*abs(x)^

m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sg
n(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sg
n(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b
^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b
*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^4*x*abs(x)^m*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b
^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi
*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^4
*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 120*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 8*b*n*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(

x) - 1/4*pi*m)^2 + 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 -
16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3
2*b^3*n^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*a) - 32*b^3*n^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*
pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*t
an(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 24*b*m^
2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(
-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sg
n(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 16*m^3*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a) + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(2*a) + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a) + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 32*b^2*m*n^2*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a) + 32*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) -
96*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(2*a) + 96*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(2*a) + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))

)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 120*b^2*m^2*n^2*x*abs(x)^m*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a

bs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 - 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(2*a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 16*m^3*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x
) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(2*a)^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 48*b*m^2*n
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 6*m^4*x*abs(x)^m*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 120*b^2*n^2*x*abs(x)^m*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*m^3*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(2*a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(2*a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 36*m^2*x*abs(x)^m*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2
*a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 24*b*m^2*n*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48
*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*s

gn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(2*a)^2 - 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*n*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 64*m^3*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 64*m^3*x*ab
s(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 64*m*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a)^2 + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 8*b*n*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 1
6*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 1
6*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 +
8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2
*a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*m*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(2*a)^2 + 6*m^4*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(2*a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m^3*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*

n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 36*m^2*x*abs(x)^m*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 36*m^2*x*abs(x)^m*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*
m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2 - 256*b^3*n^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(a) - 256*b^3*n^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 48*b*m^2*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(a) + 512*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 64*m^3*x*abs(x)^m*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 48*b*m^2*n*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 1

```
6*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(a) - 512*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 512*b^2*m*n^2*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(a) - 192*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a) + 192*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a) - 64*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*b*n*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 64*m*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 48*b*m^2*n*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(a) - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 64*m*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
```

2*tan(a) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(a) - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(2*a)^2*tan(a) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(2*a)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c
) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a) + 64
*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a) -
64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
^2*tan(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(2*a)^2*tan(a) - 64*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 64*m*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(p
i*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*
sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 64*m*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x
)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 6
4*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log
(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(
a) - 120*b^2*m^2*n^2*x*abs(x)^m*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b

*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 6*m^4*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 6*m^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)

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 + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(a)^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 -
48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(
x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2
- 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m^3*x*abs(x)^m*
e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*n*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 -
16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2
+ 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)
^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(a)^2 + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) -
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(a)^2 - 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(a)^2 + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 6*m^4*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(a)^2 + 120*b^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
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- 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^2 - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 32*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 32*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 6*m^4*x*abs(x)^m*tan(2*a)^2*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*a)^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(pi* b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*b^2*m^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 64*b^2*m^2*n^2*x*abs(x)

^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 64*b^2*m^2*n^2*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 4*b^2*m^2*n^2*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 8*b*m^3*n*x
*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c))) - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
)) - 240*b^2*m*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 +
m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*s
gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2 - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b^2*n^2*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 64*b^2*n^2*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*b^2*n^2*x*abs(x)
^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 16*b*m^3*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c))) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*
b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c))) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi
*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c))) - 240*b^2*m*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*b^2*n^2*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*abs(x)^m*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sg
n(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 6*m^2*x*abs(x)^m*

e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 24*m^2*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 24*m^2*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 6*m^2*x*a
bs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8
*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b*m^3*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*m^4*x*abs(x)^m*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b^2*n^2*x*abs(x)^m
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*m^4*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*b^2*n^2*x*abs(x)
^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m*n*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*b*m*n*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*b*m*n*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*m^4*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m) - 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 96*m^2*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
) + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(

b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*b*m
*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m*n*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*m^2*x*abs(x
)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 240*b^2*m*n^
2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2 + 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^
2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^2*n^2*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2
*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c
) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2 + 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2
*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) -
pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 + 24*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi
*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s

gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b*m^3*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 8*b*m^3*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) + 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 4*m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 16*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 4*m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 96*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 96*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*

b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 24*m^2*x*abs(x)^m
*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 24*m^2*
x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
) - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(2*a) + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
+ 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a) + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 4*x*abs(x)^m*e
^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(2*a) + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*p
i*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
+ 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*m^2*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*m^2*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*x*a
bs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a) - 240*b^2*m*n^2*x*abs(x)^m*tan(2*a)^2 + m^4*x*abs(x)^m*e^(2*pi*b*n*s
gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^
m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 4*m^
4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 6
4*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*
a)^2 - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(2*a)^2 - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
 pi*b)*tan(2*a)^2 + m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*
sgn(c) + 2*pi*b)*tan(2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*
pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))*tan(2*a)^2 + 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*
a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a
)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 24*m^2*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*

n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)
^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 48*b*m*n*x*abs(
x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 24*
m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 6*m^2*x*
abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(2*a)^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - x*abs(x)^
m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2
 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(
2*a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(2*a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*
b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 +
48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2
+ 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*
b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 24*m^2*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 96*m^
2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 96*m^2*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2 + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 4*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p

```
i*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi
*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2 + 24*m^3*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 6*m^
2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^
2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sg
n(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(2*a)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + x*abs(x)^m*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 24*m*x*abs(x
)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(2*a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2 - 16*b*m^3*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(a) - 16*b*m^3*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + p
i*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) - 48*b
*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(a) + 16*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a
) + 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*m^4*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 96*m^2*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 96*m^2*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 48*b*m*n*x*a
```

bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 16*m
^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(a) - 256*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*m^4*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(a) + 256*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 96*m^2*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 96*m^2*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 192*b*m*n*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 192*b*m*n*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 96*m^2*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 96*m^2*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*ta
n(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 48*b*m*n*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a) + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*
n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) + 96*m^2*x*abs(x)
^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*
log(abs(c)))*tan(2*a)^2*tan(a) + 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*ta
n(a) + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*t

an(2*a)^2*tan(a) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) - 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a) - 240*b^2*m*n^2*x*abs(x)^m*tan(a)^2 - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 + 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 - 24*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)

) + b*log(abs(c)))^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 96*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*m^3*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 24*m*x*abs(x

```
)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(a)^2 + 24*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b
*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 24*b*m*n
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
a)*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(
c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 2
4*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 4*x*abs(x)^m*e^
(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)*tan(a)^
2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a)*tan(a)^2 - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 +
24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*x*abs(x)^m*e^(2*pi*b*
n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 4*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a
)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
2*a)*tan(a)^2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c)
 + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
```

)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)*tan(a)^2 - 24*m^3*x*abs(x)^m*t
an(2*a)^2*tan(a)^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 24*m^2*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + 6*m^2*x
*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)
^2*tan(a)^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2
 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*
n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^
2*tan(a)^2 - 24*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2
*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^
2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 4*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a
)^2 - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(2*a)^2*tan(a)^2 + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(2*a)^2*tan(a)^2 - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a)^2*tan(a)^2 + 24*m*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*
x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 120*b^2*m^2*n^2*x*
abs(x)^m - 8*b^2*m*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sg
n(c) - 2*pi*b) - 128*b^2*m*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b) - 128*b^2*m*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b) - 8*b^2*m*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2
*pi*b*sgn(c) + 2*pi*b) - 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*
n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 24*b
*m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*

```
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 6*m^4*x*abs(x)^m*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2 - 120*b^2*n^2*x*abs(x)^m*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*p
i*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 16*m^3*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(
x)) + 2*b*log(abs(c)))^2 - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*m^3*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2 - 48*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 48*b*m^2
*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c))) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi
*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(ab
s(x)) + b*log(abs(c))) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*
b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c))) - 6*m^4*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2 - 120*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*m^
3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 16*m^3*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n -
2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b*n*x*ab
s(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 8*b*n
*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 -
 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
 pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2 + 24*b*m^2*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48
*b*m^2*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m^2*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m^2*n*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
```

b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*
sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m) + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 64*m^3
*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(ab
s(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 64*m*x*abs(x)^m*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x)
- 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b
*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m) - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*m*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m) + 6*m^4*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 120*b^2*n^2*x
*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b
*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2 + 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x)

- pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n
+ pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 24*b*m^2*n*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 24*b*
m^2*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*a) + 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 16*m^3*x*abs(x
)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) -
2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(2*a) + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a) - 8*b*n*x
*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(
x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(2*a) + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c
) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(2*a) + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
- 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(2*a) - 16*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a) + 16*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) +
2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 32*b*n*x*abs(x)^m*e^(2*
pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 32*b*n*x*abs(x)
^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*m*x
*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n

*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)
- 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(2*a) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(2*a) + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(2*a) + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b
*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) + 8*b*n*x*abs(
x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 6*m^4*x*abs(x)^m*tan(2*a)^
2 - 120*b^2*n^2*x*abs(x)^m*tan(2*a)^2 + 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x)
 - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 16*m^3*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 16*m^3*x*abs(x)^m*e^
(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + 4*m^3*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 8*b
*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*
b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))*tan(2*a)^2 - 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(2*a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(2*a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*s
gn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 16*
b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)
^2 - 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 +
4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*m*x*abs(x)^m*e^(-
2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(2*a)^2 - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 - 8*b*n*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n

+ pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 16*b*n*x
*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(2*a)^2 + 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16
*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a
)^2 - 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(2*a)^2 - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(2*a)^2 + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)
*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2
*a)^2 + 36*m^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*
m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2
+ 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) +
 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2
*a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 48*b*m^2*n*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 48*b*m^2*n*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) - 16*b*n
*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(a) + 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*
tan(a) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(a) + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-p
i*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs
(c)))^2*tan(a) - 64*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*m^3*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
a) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a
) - 64*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b

*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64
*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*m*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 64*m*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*b*n*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 64*m*x*abs(x)^m*e^(pi*b*
n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a) + 64*m*x*abs(x
)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*
n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan
(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 64*m*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*
a)^2*tan(a) - 6*m^4*x*abs(x)^m*tan(a)^2 - 120*b^2*n^2*x*abs(x)^m*tan(a)^2 -
4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*t
an(a)^2 + 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)
*tan(a)^2 + 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi
*b)*tan(a)^2 - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 -
8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 16*m*x*ab
s(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*p
i*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(a)^2 + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi
*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(

c)))^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 36*m^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)*tan(a)^2 - 8*b*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 36*m^2*x*abs(x)^m*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 - 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan (a)^2 + 6*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 - 240*b^2*m*n^2*x*abs(x)^m - m^4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 4*b^2*n^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 4*m^4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 64*b^2*n^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 4*m^4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 64*b^2*n^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - m^4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 4*b^2*n^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 24*m^3*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 24*m^3*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 48*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 48*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*l

og(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*m^2*x*ab
s(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 96*m^2*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 96*m^2*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*x*abs(x
)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m) - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
 - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*x*abs(x)^m*e^(-2*pi*b*n
*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m) + 24*m^3*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*x*abs(
x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 + 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n
 - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 24*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x
) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 - 24*b*m*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*
pi*b)*tan(2*a) - 24*b*m*n*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*
b*sgn(c) + 2*pi*b)*tan(2*a) + 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b
*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2
*a) + 24*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*

pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 4*x*abs(x)^m*e^(2
*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a) + 4*x*abs
(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
) - 24*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 24*m^2*x*abs(x)^m*e^(-2*pi*b*
n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(2*a) + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a) - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(2*a) - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*
b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(2*a) + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*p
i*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(2*a) - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*
pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*
n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a) - 24*m^3*x*abs(x)^m*tan(2*a)^2 + 6*m^2
*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a
)^2 - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(2*a)^2 - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b
)*tan(2*a)^2 + 6*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn
(c) + 2*pi*b)*tan(2*a)^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(2*a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*s
gn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*x
*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs
(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*
a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*
tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 24*m*x*abs(x)^m*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(2*a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(
c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 4*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 - 4*x*a
bs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 -
 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(

abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 16*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x
)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2 + 24*m*x*abs
(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - x*abs(x)^m*e^(2*pi*b*n
*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 48*b*m*n*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + 96*m^2*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))*tan(a) + 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
+ pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*abs(x)^m*e^(-pi
*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) - 96*m^2*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(a) + 96*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n -
pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(a) - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a) + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(2*a)^2*tan(a) + 16*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(2*a)^2*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)^2*tan(a) + 16*x*abs(x)^
m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(2*a)^2*tan(a) - 24*m^3*x*abs(x)^m*tan(a)^2 - 6*m^2*x*abs(x)^m*e
^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 24*m^2*x*
abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 24*m^2*
x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 6*m^
2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a
)^2 - 24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 +

x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - 24*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 24*m*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a)*tan(a)^2 - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a)*tan(a)^2 - 24*m*x*abs(x)^m*tan(2*a)^2*tan(a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2*tan(a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2*tan(a)^2 - 6*m^4*x*abs(x)^m - 120*b^2*n^2*x*abs(x)^m - 4*m^3*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 16*m^3*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 16*m^3*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 4*m^3*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -

2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))) - 8*b*n*x*abs(x)^m*e^(-2*p
i*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2
*b*log(abs(c))) - 36*m^2*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b
)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 16*m*x*abs(x)^m*e^(pi*b*n*sg
n(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2 - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
 + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*t
an(b*n*log(abs(x)) + b*log(abs(c))) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) +
 pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 36*m^2
*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - 4*m*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 -
 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*ta
n(b*n*log(abs(x)) + b*log(abs(c)))^2 - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 8*b*n*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m) + 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn
(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 8*b*n*
x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n +
2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*
pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m) + 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 36*m^2*
x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*s
gn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2 + 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 + 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*x*abs(x)^m*e^(-2
*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 8*b*n*x*abs(x)^m*e^(2*pi*b*n*sgn
(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a) - 8*b*n*x*abs(x)^m*e^(-2*
pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a) + 16*m*x*abs(x)
^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(ab

```
s(x)) + 2*b*log(abs(c)))*tan(2*a) + 16*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2
*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*
tan(2*a) - 16*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) -
2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 16*m*x*abs(x)^m*e^(-2*pi
*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(2*a) - 36*m^2*x*abs(x)^m*tan(2*a)^2 + 4*m*x*abs(x)^m*e^(2*pi*b*n*
sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 16*m*x*abs(x)^m*e^
(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 16*m*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + 4*m*x*abs(x)^
m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 - 6*x
*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 - 6*x*abs(x
)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 6*x*abs(x)^m*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x)
- pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)
+ 64*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))*tan(a) - 64*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 64*m*x*
abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(a) - 36*m^2*x*abs(x)^m*tan(a)^2 - 4*m*x*abs(x)^m*e^(2*pi
*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 16*m*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 16*m*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 4*m*x*abs(x)^m
*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - 6*x*ab
s(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 - 6*x*abs(x)^m*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 6*x*abs(x)^m*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 6*x*abs(x)^m*tan(2*a)^2*tan(a)^2 - 24*m^3*x
*abs(x)^m - 6*m^2*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c)
- 2*pi*b) - 24*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b) - 24*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 6
*m^2*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) -
24*m*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + x*abs(x)^m*e^(
2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 4*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi
*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 24*m*x*abs(x)^m*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2
*pi*b*sgn(c) - 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*x*abs(x)^
m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x)
+ 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
```

- 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 24*m*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))*tan(2*a) - 4*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) + 4*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(2*a) - 24*m*x*abs(x)^m*tan(2*a)^2 + x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(2*a)^2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(2*a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(2*a)^2 + x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(2*a)^2 + 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) - 16*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 24*m*x*abs(x)^m*tan(a)^2 - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b)*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b)*tan(a)^2 - 36*m^2*x*abs(x)^m - 4*m*x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 16*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 16*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 4*m*x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 6*x*abs(x)^m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 - 6*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 6*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*x*abs(x)^m*tan(2*a)^2 - 6*x*abs(x)^m*tan(a)^2 - 24*m*x*abs(x)^m - x*abs(x)^m*e^(2*pi*b*n*sgn(x) - 2*pi*b*n + 2*pi*b*sgn(c) - 2*pi*b) - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - x*abs(x)^m*e^(-2*pi*b*n*sgn(x) + 2*pi*b*n - 2*pi*b*sgn(c) + 2*pi*b) - 6*x*abs

(x)^m)/(64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*ta
n(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 +
64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^4*m*n
^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4
*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)
) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*m*n^4*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*m*n^4*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a)^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*l
og(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4
*m*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n
^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c

)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + m^5*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4
*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*lo
g(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(
abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^
4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2
+ 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*m
^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(2*a)^2 + 64*b^4*m*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(2*a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^5*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m*n^2*tan(2*b*n*l
og(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(

1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*m*n^4*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*m
^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*
b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^4*m*n^4*
tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*t
an(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(2*a)^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2*tan(a)^2 + m^5*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 10*m
^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^
4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 +
60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2 + 64*b^4*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(2*a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m^2*n^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 5
*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 20*b^2*n^2*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*n^4*tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 64*b^4*n^4*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x))

+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 64*b^4*n^4*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*m*n^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 64*b^4*m*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 64*b^4*m*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^4*m*n^4*tan(2*a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*m^3*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^5*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*m*n^4*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a

bs(c)))^2*tan(a)^2 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m*n^2*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)
^2 + m^5*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(a)^2 + 60*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(a)^2 + 20*b^2*m^3*n^2*tan(2*a)^2*tan(a)^2 + m^5*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + m^5*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan
(a)^2 + m^5*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*
m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 10*m^3*tan(2*
b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
2*a)^2*tan(a)^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b^4*n^4*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2 + 64*b^4*n^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 60*b^
2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2 + 64*b^4*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 60*b^2*m^
2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 60*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2
0*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 64*b^4*n^4*tan(2*a)^2
+ 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 60
*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 5*m^4*tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 60*b^2*m^2*n^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a
)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(2*a)^2 + 64*b^4*n^4*tan(a)^2 + 60*b^2*m^2*n^2*tan(2*b
*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(b*n*log(a

bs(x)) + b*log(abs(c)))^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan
(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c))
)^2*tan(a)^2 + 60*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 +
5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*n^2*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2
 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m^2*n^
2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*ta
n(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2*tan(a)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^
2*tan(a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2*t
an(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 5*m^4*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 20*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan
(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 64*b
^4*m*n^4 + 20*b^2*m^3*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 20*b
^2*m^3*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + m^5*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 60*b^2*m*n
^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2 + 20*b^2*m^3*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^5*tan(2*b*
n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 60*b
^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + m^5*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2 + 60*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 + 20*b^2*m^3*n^2*tan(2*a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(2*a)^2 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*t
an(2*a)^2 + m^5*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 60*b^2*
m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 10*m^3*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(2*a)^2 + m^5*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 60*b^2*m*n^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^3*tan(2*b*n*log(abs(x))
+ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^3*
tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 20*b^2

```
*m^3*n^2*tan(a)^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2
 + 60*b^2*m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + m^5*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 60*b^2*m*n^2*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log
(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + m^5*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 60*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 5*m*tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^5*tan(2*a)^2*tan(a)^2 + 60*b^2*m*n^2*
tan(2*a)^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan
(2*a)^2*tan(a)^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2
*tan(a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 10*m^3*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + 5*m*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*t
an(a)^2 + 64*b^4*n^4 + 60*b^2*m^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c
)))^2 + 60*b^2*m^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*m^4*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2 + 60*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 +
5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*
b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2 + 60*b^2*m^2*n^2*tan(2*a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(2*a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(2*a)^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)^2 + 20*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 10*m^
2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(2*a)^2 + 5*m^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 +
20*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^2*tan(2*b*n*
log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)
^2 + 10*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(2*a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2
+ 60*b^2*m^2*n^2*tan(a)^2 + 5*m^4*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(a)^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2
 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 20*b^2*n^2*tan(b
*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 5*m^4
```

*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 20*b^2*n^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 10*m^2*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 5*m^4*tan(2*a)^2*tan(a)^2 + 20*b^2*
n^2*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*
a)^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 10*m^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2 + tan(b*n*log(abs(x)
) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2*tan(a)^2
 + 20*b^2*m^3*n^2 + m^5*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 60*b^2*
m*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + m^5*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2 + 60*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 +
10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2 + m^5*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 60*b^2*m*n^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 5*m*tan(2*b*n*log(abs(x)) +
 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + m^5*tan(2*a)^2 + 60*b^2*m*n^2*tan(2*a)^2 + 10*m^3*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 10*m^3*tan(b*n*log(abs(x
)) + b*log(abs(c)))^2*tan(2*a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(
c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 10*m^3*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 5*m*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + m^5
*tan(a)^2 + 60*b^2*m*n^2*tan(a)^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(a)^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^
2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*
log(abs(c)))^2*tan(a)^2 + 10*m^3*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2
 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(a)^2 + 5*m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 10*m^3*tan(2*a)^2*tan(a)^2 + 5*m*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 5*m*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + 5*m*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(2*a)^2*tan(a)^2 + 60*b^2*m^2*n^2 + 5*m^4*tan(2*b*n*log(abs(x))
 + 2*b*log(abs(c)))^2 + 20*b^2*n^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))
^2 + 5*m^4*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 20*b^2*n^2*tan(b*n*log(
abs(x)) + b*log(abs(c)))^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c))
)^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*m^4*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 20*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^2*tan(2*b*n
*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^

2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 5*m^4*tan(2*a)^2 + 20*b^2*n^2*
tan(2*a)^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 +
10*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + tan(2*b*n*log(a
bs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)
^2 + 10*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + tan(2*b*n*log(ab
s(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(2*a)^2 + 5*m^4*tan(a)^2 + 20*b^2*n^2*tan(a)^2 + 10*m^2*tan(2*b*n*log(abs(x
)) + 2*b*log(abs(c)))^2*tan(a)^2 + 10*m^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(a)^2 + 10*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(a)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 10*m^2*tan(2*a)^2*tan(a)^2 + tan(2*b*n*lo
g(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(2*a)^2*tan(a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(2*a)^2*tan(a)^2 + m^5 + 60*b^2*m*n^2 + 10*m^3*tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2 + 10*m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*m*tan(2
*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 + 10*m^3*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 5*m*tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 5*m*tan(b*n*log(abs(
x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^3*tan(2*a)^
2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(2*a)^2 + 5*m*tan(b*n
*log(abs(x)) + b*log(abs(c)))^2*tan(2*a)^2 + 5*m*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(2*a)^2 + 10*m^3*tan(a)^2 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(
abs(c)))^2*tan(a)^2 + 5*m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 +
5*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 5*m*tan(2*a)^2*tan(a)^2 +
5*m^4 + 20*b^2*n^2 + 10*m^2*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 + 1
0*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(2*b*n*log(abs(x)) + 2*b*
log(abs(c)))^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 10*m^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2 + tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 + 10*m^2*tan(2*a)^2 + tan(2*b*n*log(abs(x)) + 2*b
*log(abs(c)))^2*tan(2*a)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(2*a
)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(2*a)^2 + 10*m^2*tan(a)^2 + tan(
2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2*tan(a)^2 + tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + tan(2
*a)^2*tan(a)^2 + 10*m^3 + 5*m*tan(2*b*n*log(abs(x)) + 2*b*log(abs(c)))^2 +
5*m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 5*m*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + 5*m*tan(2*a)^2 + 5*m*tan(a)^2 + 10*m^2 + tan(2*b*n*log(abs(x)) +
2*b*log(abs(c)))^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2 + tan(2*a)^2 + tan(a)^2 + 5*m + 1)

Mupad [B] (verification not implemented)

Time = 28.48 (sec) , antiderivative size = 152, normalized size of antiderivative = 0.57

$$\int x^m \cos^4(a+b\log(cx^n))\,dx = \frac{3\,x\,x^m}{8\,m+8}+\frac{x\,x^m\,e^{a\,2i}\,{\left(c\,x^n\right)}^{b\,2i}}{4\,m+4+b\,n\,8i}+\frac{x\,x^m\,e^{-a\,2i}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2i}}\,1i}{m\,4i+8\,b\,n+4i}+\frac{x\,x^m\,e^{a\,4i}\,{\left(c\,x^n\right)}^{b\,4i}}{16\,m+16+b\,n\,64i}+\frac{x\,x^m\,e^{-a\,4i}\,\frac{1}{{\left(c\,x^n\right)}^{b\,4i}}\,1i}{m\,16i+64\,b\,n+16i}$$

```
[In] int(x^m*cos(a + b*log(c*x^n))^4,x)
```

```
[Out] (3*x*x^m)/(8*m + 8) + (x*x^m*exp(a*2i)*(c*x^n)^(b*2i))/(4*m + b*n*8i + 4) +
 (x*x^m*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(m*4i + 8*b*n + 4i) + (x*x^m*exp(a*4i
)*(c*x^n)^(b*4i))/(16*m + b*n*64i + 16) + (x*x^m*exp(-a*4i)/(c*x^n)^(b*4i)*
1i)/(m*16i + 64*b*n + 16i)
```

3.124 $\int x^m \cos^3(a+b\log(cx^n))\,dx$

Optimal result 1671
Rubi [A] (verified) 1671
Mathematica [A] (verified) 1673
Maple [A] (verified) 1673
Fricas [A] (verification not implemented) 1674
Sympy [F(-1)] 1674
Maxima [B] (verification not implemented) 1674
Giac [B] (verification not implemented) 1676
Mupad [B] (verification not implemented) 1797

Optimal result

Integrand size = 17, antiderivative size = 201

$$\int x^m \cos^3(a+b\log(cx^n))\,dx = \frac{6b^2(1+m)n^2x^{1+m}\cos(a+b\log(cx^n))}{((1+m)^2+b^2n^2)\,((1+m)^2+9b^2n^2)} + \frac{(1+m)x^{1+m}\cos^3(a+b\log(cx^n))}{(1+m)^2+9b^2n^2} + \frac{6b^3n^3x^{1+m}\sin(a+b\log(cx^n))}{((1+m)^2+b^2n^2)\,((1+m)^2+9b^2n^2)} + \frac{3bnx^{1+m}\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+9b^2n^2}$$

```
[Out] 6*b^2*(1+m)*n^2*x^(1+m)*cos(a+b*ln(c*x^n))/((1+m)^2+b^2*n^2)/((1+m)^2+9*b^2
*n^2)+(1+m)*x^(1+m)*cos(a+b*ln(c*x^n))^3/((1+m)^2+9*b^2*n^2)+6*b^3*n^3*x^(1
+m)*sin(a+b*ln(c*x^n))/((1+m)^2+b^2*n^2)/((1+m)^2+9*b^2*n^2)+3*b*n*x^(1+m)*
cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n))/((1+m)^2+9*b^2*n^2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 201, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used

$= \{4576, 4574\}$

$$\int x^m \cos^3(a + b\log(cx^n))\,dx = \frac{(m+1)x^{m+1}\cos^3(a + b\log(cx^n))}{9b^2n^2 + (m+1)^2} + \frac{6b^2(m+1)n^2x^{m+1}\cos(a + b\log(cx^n))}{(b^2n^2 + (m+1)^2)(9b^2n^2 + (m+1)^2)} + \frac{3bnx^{m+1}\sin(a + b\log(cx^n))\cos^2(a + b\log(cx^n))}{9b^2n^2 + (m+1)^2} + \frac{6b^3n^3x^{m+1}\sin(a + b\log(cx^n))}{(b^2n^2 + (m+1)^2)(9b^2n^2 + (m+1)^2)}$$

```
[In] Int[x^m*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (6*b^2*(1 + m)*n^2*x^(1 + m)*Cos[a + b*Log[c*x^n]])/(((1 + m)^2 + b^2*n^2)*
((1 + m)^2 + 9*b^2*n^2)) + ((1 + m)*x^(1 + m)*Cos[a + b*Log[c*x^n]]^3)/((1
+ m)^2 + 9*b^2*n^2) + (6*b^3*n^3*x^(1 + m)*Sin[a + b*Log[c*x^n]])/(((1 + m)
^2 + b^2*n^2)*((1 + m)^2 + 9*b^2*n^2)) + (3*b*n*x^(1 + m)*Cos[a + b*Log[c*x
^n]]^2*Sin[a + b*Log[c*x^n]])/((1 + m)^2 + 9*b^2*n^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{(1+m)x^{1+m}\cos^3(a + b\log(cx^n))}{(1+m)^2 + 9b^2n^2} + \frac{3bnx^{1+m}\cos^2(a + b\log(cx^n))\sin(a + b\log(cx^n))}{(1+m)^2 + 9b^2n^2} + \frac{(6b^2n^2)\int x^m\cos(a + b\log(cx^n))\,dx}{(1+m)^2 + 9b^2n^2}$$

$$= \frac{6b^2(1+m)n^2x^{1+m}\cos(a+b\log(cx^n))}{((1+m)^2+b^2n^2)((1+m)^2+9b^2n^2)} + \frac{(1+m)x^{1+m}\cos^3(a+b\log(cx^n))}{(1+m)^2+9b^2n^2} + \frac{6b^3n^3x^{1+m}\sin(a+b\log(cx^n))}{((1+m)^2+b^2n^2)((1+m)^2+9b^2n^2)} + \frac{3bnx^{1+m}\cos^2(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+9b^2n^2}$$

Mathematica [A] (verified)

Time = 1.59 (sec) , antiderivative size = 292, normalized size of antiderivative = 1.45

$$\int x^m\cos^3(a+b\log(cx^n))\,dx = \frac{1}{4}x^{1+m}\left(-\frac{3\sin(bn\log(x))(-bn\cos(a-bn\log(x)+b\log(cx^n))+(1+m)\sin(a-bn\log(x)+b\log(cx^n)))}{1+2m+m^2+b^2n^2} + \frac{3\cos(bn\log(x))((1+m)\cos(a-bn\log(x)+b\log(cx^n))+bn\sin(a-bn\log(x)+b\log(cx^n)))}{1+2m+m^2+b^2n^2} - \frac{\sin(3bn\log(x))(-3bn\cos(3(a-bn\log(x)+b\log(cx^n)))+(1+m)\sin(3(a-bn\log(x)+b\log(cx^n))))}{1+2m+m^2+9b^2n^2} + \frac{\cos(3bn\log(x))((1+m)\cos(3(a-bn\log(x)+b\log(cx^n)))+3bn\sin(3(a-bn\log(x)+b\log(cx^n))))}{1+2m+m^2+9b^2n^2}\right)$$

```
[In] Integrate[x^m*Cos[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^(1 + m)*((-3*Sin[b*n*Log[x]]*(-(b*n*Cos[a - b*n*Log[x] + b*Log[c*x^n]])
+ (1 + m)*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))/(1 + 2*m + m^2 + b^2*n^2) +
(3*Cos[b*n*Log[x]]*((1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n*Sin[a
- b*n*Log[x] + b*Log[c*x^n]]))/(1 + 2*m + m^2 + b^2*n^2) - (Sin[3*b*n*Log[x
]]*(-3*b*n*Cos[3*(a - b*n*Log[x] + b*Log[c*x^n])] + (1 + m)*Sin[3*(a - b*n*
Log[x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 9*b^2*n^2) + (Cos[3*b*n*Log[x]]*
((1 + m)*Cos[3*(a - b*n*Log[x] + b*Log[c*x^n])] + 3*b*n*Sin[3*(a - b*n*Log[
x] + b*Log[c*x^n])]))/(1 + 2*m + m^2 + 9*b^2*n^2)))/4
```

Maple [A] (verified)

Time = 28.45 (sec) , antiderivative size = 160, normalized size of antiderivative = 0.80

method	result
parallelrisch	$\frac{3\left(\frac{(1+m)\left(b^2n^2+m^2+2m+1\right)\cos(3b\ln(c\,x^n)+3a)}{27}+\frac{bn\left(b^2n^2+m^2+2m+1\right)\sin(3b\ln(c\,x^n)+3a)}{9}+((1+m)\cos(a+b\ln(c\,x^n))+\sin(a+b\,l\right.}{4(b^2n^2+m^2+2m+1)\left(b^2n^2+\frac{1}{9}m^2+\frac{2}{9}m+\frac{1}{9}\right)}$

```
[In] int(x^m*cos(a+b*ln(c*x^n))^3,x,method=_RETURNVERBOSE)
```

```
[Out] 3/4*(1/27*(1+m)*(b^2*n^2+m^2+2*m+1)*cos(3*b*ln(c*x^n)+3*a)+1/9*b*n*(b^2*n^2
+m^2+2*m+1)*sin(3*b*ln(c*x^n)+3*a)+((1+m)*cos(a+b*ln(c*x^n))+sin(a+b*ln(c*x
^n))*b*n)*(b^2*n^2+1/9*m^2+2/9*m+1/9))*x^(1+m)/(b^2*n^2+m^2+2*m+1)/(b^2*n^2
+1/9*m^2+2/9*m+1/9)
```

Fricas [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 190, normalized size of antiderivative = 0.95

$$\int x^m \cos^3(a + b\log(cx^n))\,dx = \frac{3\left(2\,b^3n^3x + (b^3n^3 + (bm^2 + 2\,bm + b)n)x\cos(bn\log(x) + b\log(c) + a)^2\right)x^m\sin(bn\log(x) + b\log(c) + a)}{9\,b^4n^4 + m^4 + 4\,m^3 +}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] (3*(2*b^3*n^3*x + (b^3*n^3 + (b*m^2 + 2*b*m + b)*n)*x*cos(b*n*log(x) + b*lo
g(c) + a)^2)*x^m*sin(b*n*log(x) + b*log(c) + a) + (6*(b^2*m + b^2)*n^2*x*co
s(b*n*log(x) + b*log(c) + a) + (m^3 + (b^2*m + b^2)*n^2 + 3*m^2 + 3*m + 1)*
x*cos(b*n*log(x) + b*log(c) + a)^3)*x^m)/(9*b^4*n^4 + m^4 + 4*m^3 + 10*(b^2
*m^2 + 2*b^2*m + b^2)*n^2 + 6*m^2 + 4*m + 1)
```

Sympy [F(-1)]

Timed out.

$$\int x^m \cos^3(a + b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n))**3,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 2352 vs. 2(201) = 402.

Time = 0.36 (sec) , antiderivative size = 2352, normalized size of antiderivative = 11.70

$$\int x^m \cos^3(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] 1/8*(((cos(6*b*log(c))*cos(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) +
cos(3*b*log(c)))*m^3 + 3*(b^3*cos(3*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b
```

```
*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c)))*n^3 + 3*(cos(6*b*log(c))*co
s(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) + cos(3*b*log(c)))*m^2 + (b
^2*cos(6*b*log(c))*cos(3*b*log(c)) + b^2*sin(6*b*log(c))*sin(3*b*log(c)) +
b^2*cos(3*b*log(c)) + (b^2*cos(6*b*log(c))*cos(3*b*log(c)) + b^2*sin(6*b*lo
g(c))*sin(3*b*log(c)) + b^2*cos(3*b*log(c)))*m)*n^2 + 3*(cos(6*b*log(c))*co
s(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) + cos(3*b*log(c)))*m + 3*((
b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(3*b*log(c)) + b*s
in(3*b*log(c)))*m^2 + b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))
*sin(3*b*log(c)) + 2*(b*cos(3*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))
*sin(3*b*log(c)) + b*sin(3*b*log(c)))*m + b*sin(3*b*log(c)))*n + cos(6*b*lo
g(c))*cos(3*b*log(c)) + sin(6*b*log(c))*sin(3*b*log(c)) + cos(3*b*log(c)))*
x*x^m*cos(3*b*log(x^n) + 3*a) + 3*((cos(4*b*log(c))*cos(3*b*log(c)) + cos(3
*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)) + sin(3*b*log(
c))*sin(2*b*log(c)))*m^3 + 9*(b^3*cos(3*b*log(c))*sin(4*b*log(c)) - b^3*cos
(4*b*log(c))*sin(3*b*log(c)) + b^3*cos(2*b*log(c))*sin(3*b*log(c)) - b^3*co
s(3*b*log(c))*sin(2*b*log(c)))*n^3 + 3*(cos(4*b*log(c))*cos(3*b*log(c)) + c
os(3*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)) + sin(3*b*
log(c))*sin(2*b*log(c)))*m^2 + 9*(b^2*cos(4*b*log(c))*cos(3*b*log(c)) + b^2
*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) + b^
2*sin(3*b*log(c))*sin(2*b*log(c)) + (b^2*cos(4*b*log(c))*cos(3*b*log(c)) +
b^2*cos(3*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(3*b*log(c)) +
 b^2*sin(3*b*log(c))*sin(2*b*log(c)))*m)*n^2 + 3*(cos(4*b*log(c))*cos(3*b*l
og(c)) + cos(3*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c))
+ sin(3*b*log(c))*sin(2*b*log(c)))*m + ((b*cos(3*b*log(c))*sin(4*b*log(c))
- b*cos(4*b*log(c))*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b
*cos(3*b*log(c))*sin(2*b*log(c)))*m^2 + b*cos(3*b*log(c))*sin(4*b*log(c)) -
 b*cos(4*b*log(c))*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*
cos(3*b*log(c))*sin(2*b*log(c)) + 2*(b*cos(3*b*log(c))*sin(4*b*log(c)) - b*
cos(4*b*log(c))*sin(3*b*log(c)) + b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos
(3*b*log(c))*sin(2*b*log(c)))*m)*n + cos(4*b*log(c))*cos(3*b*log(c)) + cos(
3*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)) + sin(3*b*log
(c))*sin(2*b*log(c)))*x*x^m*cos(b*log(x^n) + a) - ((cos(3*b*log(c))*sin(6*b
*log(c)) - cos(6*b*log(c))*sin(3*b*log(c)) + sin(3*b*log(c)))*m^3 - 3*(b^3*
cos(6*b*log(c))*cos(3*b*log(c)) + b^3*sin(6*b*log(c))*sin(3*b*log(c)) + b^3
*cos(3*b*log(c)))*n^3 + 3*(cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c)
)*sin(3*b*log(c)) + sin(3*b*log(c)))*m^2 + (b^2*cos(3*b*log(c))*sin(6*b*log
(c)) - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*sin(3*b*log(c)) + (b^2*cos
(3*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(3*b*log(c)) + b^2*si
n(3*b*log(c)))*m)*n^2 + 3*(cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c)
)*sin(3*b*log(c)) + sin(3*b*log(c)))*m - 3*((b*cos(6*b*log(c))*cos(3*b*log(
c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b*log(c)))*m^2 + b*cos(6*
b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + 2*(b*cos(6*
b*log(c))*cos(3*b*log(c)) + b*sin(6*b*log(c))*sin(3*b*log(c)) + b*cos(3*b*l
og(c)))*m + b*cos(3*b*log(c)))*n + cos(3*b*log(c))*sin(6*b*log(c)) - cos(6*
b*log(c))*sin(3*b*log(c)) + sin(3*b*log(c)))*x*x^m*sin(3*b*log(x^n) + 3*a)
```

```
- 3*((cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)) + c
os(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*m^3 - 9*(
b^3*cos(4*b*log(c))*cos(3*b*log(c)) + b^3*cos(3*b*log(c))*cos(2*b*log(c)) +
 b^3*sin(4*b*log(c))*sin(3*b*log(c)) + b^3*sin(3*b*log(c))*sin(2*b*log(c)))
*n^3 + 3*(cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c))
 + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*m^2 +
 9*(b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*log(c
)) + b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*log(
c)) + (b^2*cos(3*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(3*b*lo
g(c)) + b^2*cos(2*b*log(c))*sin(3*b*log(c)) - b^2*cos(3*b*log(c))*sin(2*b*l
og(c)))*m)*n^2 + 3*(cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3
*b*log(c)) + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(
c)))*m - ((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*lo
g(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c
)))*m^2 + b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log
(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)
) + 2*(b*cos(4*b*log(c))*cos(3*b*log(c)) + b*cos(3*b*log(c))*cos(2*b*log(c)
) + b*sin(4*b*log(c))*sin(3*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*
m)*n + cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)) +
cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*x^m*si
n(b*log(x^n) + a))/((cos(3*b*log(c))^2 + sin(3*b*log(c))^2)*m^4 + 9*(b^4*co
s(3*b*log(c))^2 + b^4*sin(3*b*log(c))^2)*n^4 + 4*(cos(3*b*log(c))^2 + sin(3
*b*log(c))^2)*m^3 + 6*(cos(3*b*log(c))^2 + sin(3*b*log(c))^2)*m^2 + 10*(b^2
*cos(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2 + (b^2*cos(3*b*log(c))^2 + b^2*s
in(3*b*log(c))^2)*m^2 + 2*(b^2*cos(3*b*log(c))^2 + b^2*sin(3*b*log(c))^2)*m
)*n^2 + 4*(cos(3*b*log(c))^2 + sin(3*b*log(c))^2)*m + cos(3*b*log(c))^2 + s
in(3*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 159584 vs. 2(201) = 402.

Time = 4.73 (sec) , antiderivative size = 159584, normalized size of antiderivative = 793.95

$$\int x^m \cos^3(a + b\log(cx^n)) \, dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^3,x, algorithm="giac")
```

```
[Out] 1/8*(54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(
```

x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b^3*n^3*
x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^
2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a
)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3
*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*
a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^
2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*
tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3

/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log (abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn (x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2* pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 *tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x *abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)* tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/ 2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2 *a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) ^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4 *pi*m)^2*tan(3/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b *n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1 /4*pi*m)^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi* b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs (c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/ 2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg n(x) - 1/4*pi*m)*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b* log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sg n(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2 *b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m *sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn (x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/ 2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi* m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*s gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p i*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n* sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/

4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*p
i*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - b^2*m*n^2*x*abs(x)^
m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 54*b^3*n^3*x*ab
s(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 54*b^3*n^3*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 54*b^3*n^3
*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a)^2*tan(1/2*a) + 216*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 216*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)
^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 108*b^
2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*ta
n(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(

1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)
^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*m^2
*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/
2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
3/2*a)^2*tan(1/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)

```
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2
*a)*tan(1/2*a)^2 + 24*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
+ 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)*tan(1/2*a)^2 - 24*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x
)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 6*b^
3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a
)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(
x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 5
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4*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +

1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(
1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2
*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2
*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3
/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*
x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2
+ 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n
^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^
2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c

) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2
- 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*
n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2
*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*
x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*
n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*
b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
- b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +

3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^
2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*
a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*b*m*n*x*ab
s(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) +
12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
*tan(1/2*a) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b

*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 +
12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*t
an(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(3/2*a)*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2
*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*
sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^
2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 108*b^2*n^2*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*b^2*n^2*x*abs
(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b
^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1
/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*
sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3
/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan

(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3

*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 54*b^3*n^3*x*abs(
x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 54*b^3*n^3*x*abs(x)^m*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b^3*n
^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*m*n^2*x*abs(x)
^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi
*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b^3*n^
3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(3/2*a) + 24*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 24*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*

sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b^3*n^3*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
 + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
) + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2
*a) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
3/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))*tan(3/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 6*b^3*n^3*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 -
27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo

g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 6*b^3*n^3*
x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 54*b
^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b^3*n^3*x*abs(x)
^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(3/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(3/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n

- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^
2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(3/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 54*b^3*n^3*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*
a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi
*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 +
 b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log

(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54
*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 216*b^3*n^3*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 216*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)
 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 54*b
^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab

s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 216*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 216*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 24*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4

*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)
^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 54*b^
3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^
3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 10
8*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*t
an(1/2*a) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*
sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3
/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*
b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 54*b^3*n^3*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 6
*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3

/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*
sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^
m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^
2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 54*
b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x
)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(1/2*a)^2 - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(1/2*a)^2 + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^
2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn
(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*b^2*m*n^
2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*b^2*m*n
^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +

```
1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2
*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*m^
2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m
^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b
*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6
*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2
*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 54*b^
3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
```

))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(1/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1
/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1
/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2
*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(3/2*a)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi
*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2
 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x
)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 24*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2
 - 24*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sg

n(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1
/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m
*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/
2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 24*b*m^2*n*x
*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 2
4*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(
1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg
n(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(3/2*a)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a)*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2
*a)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*
m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*s
gn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a
)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan

(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 +
6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan
(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*
a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2
*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
- 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(
1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2
*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 -
6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)
^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m
*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)
^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a
)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1
/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*

b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b *n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^3*x*abs (x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3 /2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l og(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sg n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3 /2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2* a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1 /2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m ^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi *b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*s gn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2* pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi* b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n* sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4 *pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn (x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/ 2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sg n(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi *b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan (1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi *b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/ 4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m* e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b* n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/ 2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b *n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*m* n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi *b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4* pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*s gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^ 2 - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a bs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*ta n(1/2*a)^2 + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*

b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3
/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*
x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 -
6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*s
gn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^
m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n
*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)
^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2
*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
3/2*a)^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3
/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*
x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*

pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))

+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 108*b^2*n^2*x*abs(x)^m *e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n

- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*
a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2
*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1
/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*t
an(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*
pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*
n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))

+ 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 48*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 48*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2

*tan(3/2*a)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*b*m*
n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2
+ 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 108*b^2*n^2*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 108*b^2*n^2*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*b^2*n^2*x
*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*b^2*n^2*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*a
bs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*a
bs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + b^2*n^2*x*
abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^

(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x

)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(3/2*a)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^
2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c
) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1
/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b
*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
*tan(1/2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(3/2*a)*tan(1/2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2
*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 12*b*m*n*x*abs(
x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(3/2*a)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*m*
n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 +
 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1

/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a)*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n
*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(
x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a
)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3
/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)
^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^
2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*
a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg
n(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(-3/2

*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*ta
n(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*
a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*ab
s(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(3/2*a)^2*tan(1/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 108*
b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 36*m^2*x*abs(x)^m*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)
^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 1
2*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2
*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*ta
n(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*
pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(
1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p

i*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1
/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*
pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*t
an(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b
*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^
m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n
*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9
*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)
^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(
x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(
x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l

og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2 *pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -

1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 *tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sg n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1 /2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^ m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b *n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs (c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi *b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan (1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2* pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1 /2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3 /2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3 /2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log (abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*p i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs (x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n *sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn (x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/ 2*b*log(abs(c)))^2*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b *log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4 *b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(ab s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b* n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b *sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2* b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 24*b^3*n^3*x*abs(x)^m*e ^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n* log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 24*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sg n(x) - 1/4*pi*m)*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l

og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*m*n^2*x*ab
s(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(3/2*a) + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*p
i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 24
*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 24*b
*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*m^3
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*m^3*x*ab
s(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 6*b^3*n^3*x*ab
s(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a) + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*b^2*m*n^2*x*abs(x)
^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b
*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b*m^
2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*m^3*x*abs(x)^m*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*m^3*x*abs(x)^m*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +

3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*

b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^
2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(3/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b^3*n^
3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^
2 + 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*m^2*n*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2
+ 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sg
n(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*m^3*x*a
bs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*m^3*x*abs(x
)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*
m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -

1/4*pi*m)*tan(3/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n

+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m
^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*
pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 10
8*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n
*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x))

+ 1/2*b*log(abs(c)))^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)
 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)
- 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 216*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 216*b^3*n^3*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(1/2*a) + 24*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(1/2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 1
2*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*m^
3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 54*b^3*n
^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 54*b^3*n^3*x*abs(x)^m*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 6*b*m^2*n*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2

*a) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)
+ 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6
*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^
2*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*m^2*n*x*ab
s(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b
^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*
a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)
^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*m^3*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*t
an(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(

1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 24*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 24*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 24*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(

abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))

+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c

)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2
*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3
/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi
*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2
 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 27*b^2*m*n
^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b*m^2*
n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3
*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e

^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 6*b*m^2*n*x*

abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*
m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)
^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*ta
n(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*m^
3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4
*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*
m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 24*b*m^2*n
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)*tan(3/2*a)*tan(1/2*a)^2 - 24*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*m^3*
x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*
abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(3/2*a)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 24*b*n*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 24*
b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)
^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -

3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan
(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/
2*a)*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
+ 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*
tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(
1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg
n(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/
2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*
b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(
1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg
n(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*p
i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*ta
n(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*s
gn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(3/2*a)*tan(1/2*a)^2 - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*
n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - b
^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*
pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*ab

s(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^3
*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
- 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
- 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1
/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a
)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n
*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x
)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*
x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/
2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*
m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2
 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*
b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2
*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*m^2*n*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*

tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*m^3*x*abs(x)^
m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a)^2*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3
/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*m^3*x*abs(
x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
3/2*a)^2*tan(1/2*a)^2 + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 36*m*x*abs(x)
^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 36*m*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2
+ 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2
 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a
)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*ta
n(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*
sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a)^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan

(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)
^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + m
^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi
*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b
*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3
*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 -
9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2
 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
- 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*n^2*
x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))

^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*n^2*x*abs(x)^m*e^

(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 48*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 48*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -

3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*b^2*n^2*x*abs(x)^m*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/
2*a) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 12*b*m*n*x*
abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn
(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(3/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3
/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 12*b*m*
n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))*tan(3/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
- 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(3/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p

i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 12*b*m*n*x*
abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m^
2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2
+ 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*b^2
*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^
2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 108*b^2*n^2*x
*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(3/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 36*m^2*x*abs(x)^m*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n
*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)

*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2
 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 1
2*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + b^2*
n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*
a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x
) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^2*x*abs
(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^
2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a
)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
- 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*m^2*x*abs(x)^
m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta

n(3/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(3/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 108*b^2*n^2*x*
abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 12*b*
m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*s
gn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 108*b^2*n
^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(1/2*a) + 48*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(1/2*a) - 48*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 36
*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 36*m^2
*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +

1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4 *pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 48*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 48*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(

x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*

b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1
/2*a)^2 + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*
a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn
(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*a
bs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn
(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(1/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a
)^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - b^2*n^2*
x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2
 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
 + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2
*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 12*b*m*n
*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n

- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 -
 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^
(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/
2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2
- 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + x*abs(x
)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 4*b^2*n^2*x*a
bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n
^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 -
12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*
a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)*
tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
3/2*a)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)
^2 - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
 + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*b^2*n^2*x*abs(x)^
m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*b^2*n^2*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 48*b*m*n*x*abs(x)^m*e^(3/2*pi*b*

n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 48*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/

2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a

)^2 - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b^3*n^3*x*abs(

x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 6*b^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) -

1/4*pi*m) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/

4*pi*m) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*n
*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - b^2*m*n^2*x*abs(x)^m
*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 -
27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*m*n^2*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^3*x*abs(x)^m*e^(3/
2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*m^3*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/
2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-
1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*n*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3
/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^3*x*abs(x
)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
- m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*

b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 6
*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m*x*abs(x)^m*e
^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*
log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*b
^3*n^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2
*pi*b)*tan(3/2*a) + 6*b^3*n^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*p
i*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 4*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(3/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*
b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a) + 4*b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4
*b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c)
+ 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 24*b*m^2*n*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2

*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3
/2*a) - 24*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*m^3*x*abs(x)^m*
e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/
2*a) + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 24*b*n*x*abs(x)^m*e^(
3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 24*b*n*x*abs(x)^m*e^(-3/2*p
i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
+ 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*
log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(3/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 4*m
^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a) + 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 6*b*n*
x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m*x*abs

(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(
3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - b^2*m*n^2*x*abs
(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3
/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 + 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - b^2*m*n^
2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/
2*a)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 +
3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*m^3*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + m^3*x*abs(x)^
m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2
*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
- 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(
-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*p
i*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*lo

g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2
*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
^2 - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*m^2*n*x*a
bs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-3/2*p
i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(3/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*m^3*x*abs(x)^m*e^(-3/2
*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 -
6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 +
 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(3/2*a)^2 + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*m^3*x*abs(x)^m*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 +
 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 36*m*
x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*n*x*ab
s(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*
tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*
b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn
(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*a

bs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(3/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(
3/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a
)^2 + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2*tan(3/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6
*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*
b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 -
9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
 - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*p
i*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*
pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2
*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)
^2 + 54*b^3*n^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/2*a) + 54*b^3*n^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +

1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1
/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)
- 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 6*b*n*
x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1
/2*b*log(abs(c)))^2*tan(1/2*a) + 108*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn
(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(1/2*a) - 108*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)
+ 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 24*b*m^2*n*x*abs(x)^m*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)
- 24*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)*tan(1/2*a) + 24*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(1/2*a) - 24*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +

1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 36*m*x*a
bs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 36*m*x*abs(x)^
m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^
m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*
m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6*b*n*x*abs(x)^
m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*
b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(
1/2*a) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(
c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*
tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*
a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3
/2*a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 36
*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi

*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 24*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 24*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 27*b^2*m*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2

*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a
)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*
b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*m^2
*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*n*x*abs
(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + m^3*x*abs
(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6
*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 +
 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2
 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a
)^2 - 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*m^2*n*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(3/2*pi*b
*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)

) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*m^3
*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b
)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*n*
x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3
/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m^3*x*abs(x)^m*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*m^
3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(1/2*a)^2 - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2
*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(1/2*a)^2 + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/
2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1
/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sg
n(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2
 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1
/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m^3*x*abs(x)^m*
e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x)
 + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)

```
^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m*x*
abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*ta
n(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*s
gn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*m*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1
/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/
2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*
m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(1/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 6*b*m^2*n*x*abs
(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(
3/2*a)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(3/2*a)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2
*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*
sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
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3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 24*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 24*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*t an(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b* log(abs(c)))^2 + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/

4*pi*m*sgn(x) - 1/4*pi*m) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/

2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m^2*x*abs(x)^m
*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*
m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*x*abs(x)
^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*s
gn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(3/2*a) - 4*b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))*tan(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b
*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*
a) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c
) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 1
2*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3
/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*m^2
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(3/2*a) - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*b^2*
n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*b^2*n^2*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(3/2*a) + 48*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 48*b*m*n*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n

*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a
) - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*p
i*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
- 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(3/2*a) - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(3/2*a) + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*
b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan
(3/2*a) - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*
sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 12*b*m*n*
x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*
m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a) + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*
pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(3/2*a) + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*
a) - b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 + 27*b^2*n^2*x*abs(x)^m
*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a
)^2 - b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/
2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*
b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))*tan(3/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2
*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(3/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*s
gn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)
^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3

*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sg n(x) - 1/4*pi*m)*tan(3/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 108*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n

+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/
2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*ta
n(1/2*a) + 108*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 108*b^2
*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(a
bs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) -
36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(1/2*a) + 48*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 48*b*m*n*x*abs(x)^m*e^(-1/
2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 3
6*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n
- 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
+ 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
*tan(1/2*a) - 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m
^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n -
1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sg
n(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3
/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) + 12*b*m*n*x
*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b
*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)

))*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a) + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 12*b*m*n*x

*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 3*m^2*x*abs(x)^
m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(
abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*x*abs
(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*
n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - x*abs(x)^
m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/2*a)^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi
*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*
a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn
(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*b*m*n*x*a
bs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 -
 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(1/2*a)^2 + 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*x*abs(x)^m*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2
*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -

3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)*tan(1/2*a)^2 + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/

2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a)^2 + x*a

bs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n
*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/
2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(3/2*a)^2*tan(1/2*a)^2 + b^2*m*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*p
i*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) + 27*b^2*m*n^2*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + 27*b^2*m*n^2*x*abs(x)^
m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + b^2*m*
n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*p
i*b) + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg
n(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 6*b*m^2*n*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - m^3*x*abs(x)^m*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x))
+ 3/2*b*log(abs(c)))^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - m^3*x*abs(x)^m
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c))) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
)) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c))) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + m^3*x*abs(x)^m*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log
(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1
/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*
b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + m^3*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(
x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6
*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*
pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x))
+ 1/2*b*log(abs(c)))^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m*x*abs(x)^m*e^(1/2*pi*

```
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x
)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 -
9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 6*b*m^2*n*x*abs(x)^m*e^
(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m) - 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*
x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(
x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m) + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m) - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi
*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*
n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*n*x*abs(
x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) +
 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*n*x*abs(x
)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6
*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
```

3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m) - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) -
m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(
x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c
) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m^3*x*abs(x)^m*e^(-3/2*pi
*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi
*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi
*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m*x*abs(x)^m*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(ab
s(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m*x*abs(
x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(
c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x
) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m*x*abs(x)^m*e^(1/2*
pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*m*x*abs(
x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/
2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 + 6*b*m^2*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/
2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a) - 4*m^3*x*abs(
x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(-3/
2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(
abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sg
n(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3

/2*b*log(abs(c)))^2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 4*m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 24*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 24*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/

2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*b*m^2*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) + 6*b*m^2*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x

) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*t
an(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)
 - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b
*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 6
*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 6*b*n*x*ab
s(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 12*m^3*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
an(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 24*b*n*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a
) - 24*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(1/2*a) - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*
n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*pi
*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 6*b
*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*
b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 6*b*n*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(-1/2*
pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 6
*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*p
i*b)*tan(3/2*a)^2*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2
*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(
x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/

2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2*tan(1/2*a) + m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 + b^2*n^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) + 27*b^2*n^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + 27*b^2*n^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + b^2*n^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(

abs(x)) + 1/2*b*log(abs(c))) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*b*m*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sg

n(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m^2*x*abs(x)^m*e^(1/
2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 - 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*m^2*x*abs(
x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) -
1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*
n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(
x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(
c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 12*b*m*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a) + 12*b*m*n*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)
- 12*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3
/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 12*m^2*x
*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 4*x*abs(x)^m*e^(3
/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log
(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(3/2*a) - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a) + 12*m^2*x*abs(x)^m*e^(3/2*pi
*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)*tan(3/2*a) - 12*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b
*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)
 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)*tan(3/2*a) + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*x*abs(x)^m*e
^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n

*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2
*a) + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/
2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a) + 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a) - 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n
*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 + 9*m^2*x*a
bs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan
(3/2*a)^2 + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) +
3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 + x*abs(x)^m*e^(3/2*p
i*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(
c)))^2*tan(3/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*p
i*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3
/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x
*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*
n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) -
3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*lo
g(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + 4*x*abs(x)^m*e^(-
3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2
 + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(3/2*a)^2 - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x)
 - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2*tan(3/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 - 3*x*ab
s(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn
(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(3/2*a)^2 + 12*b*m*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
+ 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) + 12*b*m*n*x*abs(x)^m*e^(-1/2*pi*b
*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) - 36*m^2*x*
abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*ta

n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 36*m^2*x*abs(x)^m*e ^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n *log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n* sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2* a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1 /2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs (x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi* m)*tan(1/2*a) - 36*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2* pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*x*a bs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan (3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) *tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s gn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi *m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2 *pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/ 2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi *b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4* pi*m)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2 *pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1 /4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2* b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2* b*log(abs(c)))*tan(3/2*a)^2*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) *tan(3/2*a)^2*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a)^2 *tan(1/2*a) + 3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b *sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 9*m^2*x*abs(x)^m*e^ (-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2 *pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan (1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi *b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 - x*abs(x)^ m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2* b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + x*abs(x)^m*e^(3/2*pi*

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b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b
*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*
b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2
*a)^2 + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n
 - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 12*x*abs(x)^m*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 12*x*abs
(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*
e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(1/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - 4*x*abs(x)
^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m
*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a)*tan(1/2*a)^2 + 4*x*abs(x)^m*
e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - 4*x*abs(x)^m*e^(-3/2*pi*b*n*
sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(3/2*a)*tan(1/2*a)^2 - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b
*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - 3*x*abs(x)^m*e
^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2
*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*
sgn(c) + 1/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sg
n(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2*tan(1/2*a)^2 +
 m^3*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*p
i*b) + 3*m^3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c)
 - 1/2*pi*b) + 3*m^3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b) + m^3*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n -
 3/2*pi*b*sgn(c) + 3/2*pi*b) + 6*b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*
pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c))) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn
(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) - 3*m*x*abs(x)
^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*
```

b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x
) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2 + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*
pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 - 3*
m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*
b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 6*b*n*x*abs(x)^m*e^(1/2
*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(a
bs(x)) + 1/2*b*log(abs(c))) + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c))) + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c)
 - 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m*x*abs(x)^
m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x
) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2 + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 6*
b*n*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x)
 - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
 + 6*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n
*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m) + 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(
c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m) - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2
*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1
/4*pi*m*sgn(x) - 1/4*pi*m) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*
b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 3*m*x*abs(x)^m*e^(3/2*pi*b*
n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sg
n(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 9*m*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*
pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*b*n*x*abs(x)^
m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a
) + 6*b*n*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) +
 3/2*pi*b)*tan(3/2*a) - 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n +
 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*t
an(3/2*a) - 12*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*s
gn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) +
 12*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 12*m*x*abs(x)^m*e^(-3/2*

pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)*tan(3/2*a) - 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n
 + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*
sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 + 9*m*x*abs(
x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3
/2*a)^2 - 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(
c) + 3/2*pi*b)*tan(3/2*a)^2 + 6*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a) + 6*b*n*x*abs(x)^m*e^(-1/2*p
i*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) - 36*m*x
*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 36*m*x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 36*m*x*abs(x)^m*e^(1/2*pi*b*n
*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)*tan(1/2*a) - 36*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 3*m
*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)
*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1
/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(-3
/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 +
3*m^2*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*
pi*b) + 9*m^2*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c
) - 1/2*pi*b) + 9*m^2*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*p
i*b*sgn(c) + 1/2*pi*b) + 3*m^2*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*
n - 3/2*pi*b*sgn(c) + 3/2*pi*b) - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*
b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 3*x*abs(x)^m*e^(
-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*
pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2 + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) -
 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*x*abs(x)^m*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/
2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c
) + 3/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*x*abs(x)^m
*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*x*ab
s(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) +
 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi
*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*

pi*m) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))*tan(3/2*a) + 4*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - 4*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(3/2*a) - x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(3/2*a)^2 + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(3/2*a)^2 - x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(3/2*a)^2 - 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) + 12*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 12*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b)*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b)*tan(1/2*a)^2 + 3*m*x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) + 9*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + 9*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + 3*m*x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b) + x*abs(x)^m*e^(3/2*pi*b*n*sgn(x) - 3/2*pi*b*n + 3/2*pi*b*sgn(c) - 3/2*pi*b) + 3*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + 3*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + x*abs(x)^m*e^(-3/2*pi*b*n*sgn(x) + 3/2*pi*b*n - 3/2*pi*b*sgn(c) + 3/2*pi*b))/(9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)

) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b
^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*b^
4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*b^
4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^
2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*
b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*m^
2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9
*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/
2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a
)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 9*b^4*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2
+ 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/
2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b
*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan
(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 20*b^2*m*n
^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) +
1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*

log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)

- 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*ta
n(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b
*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(a
bs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 20*b^2*m*n
^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m^3*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan(3
/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 20*b^2*m*n^2
*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)
) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(
1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 9*b^4*n^4*tan(3/2*b*n*log(abs(x)) +
3/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 9*b^4*n^4*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)
) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs
(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*
tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 9*b^4*n^4*tan(3/2*a)^2 + 10*b^2*m^2*n^2
*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*m^2*n
^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + m^4*tan(3/
2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 10

*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 9*b^4*n^4*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + m^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^

2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^
2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m*tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 20*b^2*m*n^2*tan(3/2
*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*lo
g(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)
))^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*
a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 4*m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log
(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 4*m*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 20*b^2*m*n^2*tan(
3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log
(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan
(1/2*a)^2 + 4*m^3*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)
^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a
)^2 + 9*b^4*n^4 + 10*b^2*m^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2 + 10*b^2*m^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + m^4*
tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*m^2*n^2*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*
b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2
+ 10*b^2*m^2*n^2*tan(3/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c
)))^2*tan(3/2*a)^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan
(3/2*a)^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + m^4*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(3/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 6*m^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + tan(3/2*

b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 10*b^2*m^2*n^2*
tan(1/2*a)^2 + m^4*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a
)^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^
2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 10*b^
2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*m^2*t
an(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c)))^2*tan(1/2*a)^2 + m^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a)^2 + 10*b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*m^
2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(1/2*a)^2 + 6*m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) +
 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + m^4*tan(3/2*a)^2*tan(1/2*a)^2 +
10*b^2*n^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*
b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x))
 + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)^2*tan(1/2*a)^2 + 6*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) +
 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/
2*a)^2 + 20*b^2*m*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 20*b
^2*m*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*m^3*tan(3/2*b*n
*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2 + 20*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3*tan(3/2*b*
n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*
m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*
log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 20*b
^2*m*n^2*tan(3/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(3/2*a)^2 + 4*m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3
/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 4*m^3*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))
)^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m*tan(1/2*b*n*log(ab
s(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2
 + 20*b^2*m*n^2*tan(1/2*a)^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(ab
s(c)))^2*tan(1/2*a)^2 + 4*m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^
2*tan(1/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2
*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*m^3*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(
abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 4*m*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1
/2*a)^2 + 4*m^3*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3

/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2*tan(1/2*a)^2 + 4*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 10*b^2*m^2*n^2 + m^4*tan(3/2*b*n *log(abs(x)) + 3/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + m^4*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 10*b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*m^2*tan(3/2* b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + m^4*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 10*b^2*n^2*tan(1/4*pi* m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c))) ^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*tan(1/2*b*n*log(abs(x)) + 1/2* b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan (1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^4*tan(3/2*a)^2 + 10*b^2*n^2*tan(3/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 6*m^ 2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + tan(3/2*b*n *log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs (c)))^2*tan(3/2*a)^2 + 6*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4 *pi*m)^2*tan(3/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + m^4*tan(1/2*a)^2 + 10*b^2*n^2* tan(1/2*a)^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2 *a)^2 + 6*m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1 /2*b*log(abs(c)))^2*tan(1/2*a)^2 + 6*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2* tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m* sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs (c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 6*m^2*tan(3/2*a)^2 *tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 *tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 *tan(1/2*a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2*tan(1/2*a)^2 + 20*b^2*m*n^2 + 4*m^3*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 4* m^3*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*m*tan(3/2*b*n*log(ab s(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*m^3*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*tan(1/2*b*n*lo g(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m^3* tan(3/2*a)^2 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 4*m*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + 4*m *tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(3/2*a)^2 + 4*m^3*tan(1/2*a)^2 + 4*m* tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*m*tan(1/2*b *n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 4*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 4*m*tan(3/2*a)^2*tan(1/2*a)^2 + m^4 + 10*b^2 *n^2 + 6*m^2*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 6*m^2*tan(1/2 *b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*l og(abs(c)))^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 6*m^2*tan(1/

```
4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 6*m^2*tan(3/2*a)^2 + tan(3/2*
b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2*tan(3/2*a)^2 + tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(3/2*a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*
tan(3/2*a)^2 + 6*m^2*tan(1/2*a)^2 + tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs
(c)))^2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/2*a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + tan(3/2*a)^2*tan
(1/2*a)^2 + 4*m^3 + 4*m*tan(3/2*b*n*log(abs(x)) + 3/2*b*log(abs(c)))^2 + 4*
m*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + 4*m*tan(1/4*pi*m*sgn(x)
- 1/4*pi*m)^2 + 4*m*tan(3/2*a)^2 + 4*m*tan(1/2*a)^2 + 6*m^2 + tan(3/2*b*n*l
og(abs(x)) + 3/2*b*log(abs(c)))^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs
(c)))^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(3/2*a)^2 + tan(1/2*a)^2 +
 4*m + 1)
```

Mupad [B] (verification not implemented)

Time = 28.56 (sec) , antiderivative size = 140, normalized size of antiderivative = 0.70

$$\int x^m \cos^3(a+b\log(cx^n))\,dx = \frac{3\,x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}{8\,m+8+b\,n\,8\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}\,3\mathrm{i}}{m\,8\mathrm{i}+8\,b\,n+8\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}{8\,m+8+b\,n\,24\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{-a\,3\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,3\mathrm{i}}}\,1\mathrm{i}}{m\,8\mathrm{i}+24\,b\,n+8\mathrm{i}}$$

```
[In] int(x^m*cos(a + b*log(c*x^n))^3,x)
```

```
[Out] (3*x*x^m*exp(a*1i)*(c*x^n)^(b*1i))/(8*m + b*n*8i + 8) + (x*x^m*exp(-a*1i)/(
c*x^n)^(b*1i)*3i)/(m*8i + 8*b*n + 8i) + (x*x^m*exp(a*3i)*(c*x^n)^(b*3i))/(8
*m + b*n*24i + 8) + (x*x^m*exp(-a*3i)/(c*x^n)^(b*3i)*1i)/(m*8i + 24*b*n + 8
i)
```

3.125 $\int x^m \cos^2(a+b\log(cx^n))\,dx$

Optimal result 1798
Rubi [A] (verified) 1798
Mathematica [C] (verified) 1799
Maple [A] (verified) 1800
Fricas [A] (verification not implemented) 1800
Sympy [F] 1800
Maxima [B] (verification not implemented) 1801
Giac [B] (verification not implemented) 1802
Mupad [B] (verification not implemented) 1808

Optimal result

Integrand size = 17, antiderivative size = 120

$$\int x^m \cos^2(a+b\log(cx^n))\,dx = \frac{2b^2n^2x^{1+m}}{(1+m)\left((1+m)^2+4b^2n^2\right)} + \frac{(1+m)x^{1+m}\cos^2(a+b\log(cx^n))}{(1+m)^2+4b^2n^2} + \frac{2bnx^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+4b^2n^2}$$

```
[Out] 2*b^2*n^2*x^(1+m)/(1+m)/((1+m)^2+4*b^2*n^2)+(1+m)*x^(1+m)*cos(a+b*ln(c*x^n)
)^2/((1+m)^2+4*b^2*n^2)+2*b*n*x^(1+m)*cos(a+b*ln(c*x^n))*sin(a+b*ln(c*x^n))
/((1+m)^2+4*b^2*n^2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {4576, 30}

$$\int x^m \cos^2(a+b\log(cx^n))\,dx = \frac{(m+1)x^{m+1}\cos^2(a+b\log(cx^n))}{4b^2n^2+(m+1)^2} + \frac{2bnx^{m+1}\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2n^2+(m+1)^2} + \frac{2b^2n^2x^{m+1}}{(m+1)\left(4b^2n^2+(m+1)^2\right)}$$

```
[In] Int[x^m*Cos[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*b^2*n^2*x^(1 + m))/((1 + m)*((1 + m)^2 + 4*b^2*n^2)) + ((1 + m)*x^(1 + m
)*Cos[a + b*Log[c*x^n]]^2)/((1 + m)^2 + 4*b^2*n^2) + (2*b*n*x^(1 + m)*Cos[a
 + b*Log[c*x^n]]*Sin[a + b*Log[c*x^n]])/((1 + m)^2 + 4*b^2*n^2)
```

Rule 30

```
Int[(x_)^(m_.), x_Symbol] :> Simp[x^(m + 1)/(m + 1), x] /; FreeQ[m, x] && N
eQ[m, -1]
```

Rule 4576

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.
), x_Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]^p/(b^
2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x] + (Dist[b^2*d^2*n^2*p*((p - 1)/(b^2*d^2
*n^2*p^2 + (m + 1)^2)), Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^(p - 2), x],
x] + Simp[b*d*n*p*(e*x)^(m + 1)*Sin[d*(a + b*Log[c*x^n])]*(Cos[d*(a + b*Log
[c*x^n])]^(p - 1)/(b^2*d^2*e*n^2*p^2 + e*(m + 1)^2)), x]) /; FreeQ[{a, b, c
, d, e, m, n}, x] && IGtQ[p, 1] && NeQ[b^2*d^2*n^2*p^2 + (m + 1)^2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(1+m)x^{1+m}\cos^2(a+b\log(cx^n))}{(1+m)^2+4b^2n^2} \\ &\quad+\frac{2bnx^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+4b^2n^2}+\frac{(2b^2n^2)\int x^m\,dx}{(1+m)^2+4b^2n^2} \\ &= \frac{2b^2n^2x^{1+m}}{(1+m)\left((1+m)^2+4b^2n^2\right)}+\frac{(1+m)x^{1+m}\cos^2(a+b\log(cx^n))}{(1+m)^2+4b^2n^2} \\ &\quad+\frac{2bnx^{1+m}\cos(a+b\log(cx^n))\sin(a+b\log(cx^n))}{(1+m)^2+4b^2n^2}\end{aligned}$$

Mathematica [C] (verified)

Result contains complex when optimal does not.

Time = 0.36 (sec) , antiderivative size = 91, normalized size of antiderivative = 0.76

$$\int x^m\cos^2(a+b\log(cx^n))\,dx = \frac{x^{1+m}\left(1+2m+m^2+4b^2n^2+(1+m)^2\cos(2(a+b\log(cx^n)))+2b(1+m)n\sin(2(a+b\log(cx^n)))\right)}{2(1+m)(1+m-2ibn)(1+m+2ibn)}$$

```
[In] Integrate[x^m*Cos[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (x^(1 + m)*(1 + 2*m + m^2 + 4*b^2*n^2 + (1 + m)^2*Cos[2*(a + b*Log[c*x^n])]
 + 2*b*(1 + m)*n*Sin[2*(a + b*Log[c*x^n])]))/(2*(1 + m)*(1 + m - (2*I)*b*n)
*(1 + m + (2*I)*b*n))
```

Maple [A] (verified)

Time = 5.16 (sec) , antiderivative size = 83, normalized size of antiderivative = 0.69

method	result	size
parallelrisch	$\frac{\left(4b^2n^2+2(1+m)bn\sin(2b\ln(c\,x^n)+2a)+(1+m)^2(\cos(2b\ln(c\,x^n)+2a)+1)\right)x^{1+m}}{2(4b^2n^2+m^2+2m+1)(1+m)}$	83

```
[In] int(x^m*cos(a+b*ln(c*x^n))^2,x,method=_RETURNVERBOSE)
[Out] 1/2*(4*b^2*n^2+2*(1+m)*b*n*sin(2*b*ln(c*x^n)+2*a)+(1+m)^2*(cos(2*b*ln(c*x^n
)+2*a)+1))*x^(1+m)/(4*b^2*n^2+m^2+2*m+1)/(1+m)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 105, normalized size of antiderivative = 0.88

$$\int x^m \cos^2(a+b\log(cx^n))\,dx$$
$$=\frac{2\,(bm+b)nxx^m\cos(bn\log(x)+b\log(c)+a)\sin(bn\log(x)+b\log(c)+a)+\left(2\,b^2n^2x+(m^2+2\,m+1)x\right.}{m^3+4\,(b^2m+b^2)n^2+3\,m^2+3\,m+1}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] (2*(b*m + b)*n*x*x^m*cos(b*n*log(x) + b*log(c) + a)*sin(b*n*log(x) + b*log(
c) + a) + (2*b^2*n^2*x + (m^2 + 2*m + 1)*x*cos(b*n*log(x) + b*log(c) + a)^2
)*x^m)/(m^3 + 4*(b^2*m + b^2)*n^2 + 3*m^2 + 3*m + 1)
```

Sympy [F]

$$\int x^m \cos^2(a+b\log(cx^n))\,dx$$
$$=\begin{cases}\log(x)\cos^2(a)\\ \int x^m\cos^2\left(-a+\frac{im\log(cx^n)}{2n}+\frac{i\log(cx^n)}{2n}\right)dx\\ \int x^m\cos^2\left(a+\frac{im\log(cx^n)}{2n}+\frac{i\log(cx^n)}{2n}\right)dx\\ \frac{\begin{cases}\log(x)\cos(2a) & \text{for } b=0\wedge(b=0\vee n=0)\\ \log(x)\cos(2a+2b\log(c)) & \text{for } n=0\\ \frac{\sin(2a+2b\log(cx^n))}{2bn} & \text{otherwise}\end{cases}}{2}+\frac{\log(x)}{2}\\ \frac{2b^2n^2xx^m\sin^2(a+b\log(cx^n))}{4b^2mn^2+4b^2n^2+m^3+3m^2+3m+1}+\frac{2b^2n^2xx^m\cos^2(a+b\log(cx^n))}{4b^2mn^2+4b^2n^2+m^3+3m^2+3m+1}+\frac{2bmnxx^m\sin(a+b\log(cx^n))\cos(a+b\log(cx^n))}{4b^2mn^2+4b^2n^2+m^3+3m^2+3m+1}+\frac{2bnxx^m\sin}{4b^2m}\end{cases}$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n))**2,x)
```

```
[Out] Piecewise((log(x)*cos(a)**2, Eq(b, 0) & Eq(m, -1)), (Integral(x**m*cos(-a +
 I*m*log(c*x**n)/(2*n) + I*log(c*x**n)/(2*n))**2, x), Eq(b, -I*(m + 1)/(2*n
))), (Integral(x**m*cos(a + I*m*log(c*x**n)/(2*n) + I*log(c*x**n)/(2*n))**2
, x), Eq(b, I*(m + 1)/(2*n))), (Piecewise((log(x)*cos(2*a), Eq(b, 0) & (Eq(
b, 0) | Eq(n, 0))), (log(x)*cos(2*a + 2*b*log(c)), Eq(n, 0)), (sin(2*a + 2*
b*log(c*x**n))/(2*b*n), True))/2 + log(x)/2, Eq(m, -1)), (2*b**2*n**2*x*x**
m*sin(a + b*log(c*x**n))**2/(4*b**2*m*n**2 + 4*b**2*n**2 + m**3 + 3*m**2 +
3*m + 1) + 2*b**2*n**2*x*x**m*cos(a + b*log(c*x**n))**2/(4*b**2*m*n**2 + 4*
b**2*n**2 + m**3 + 3*m**2 + 3*m + 1) + 2*b*m*n*x*x**m*sin(a + b*log(c*x**n)
)*cos(a + b*log(c*x**n))/(4*b**2*m*n**2 + 4*b**2*n**2 + m**3 + 3*m**2 + 3*m
 + 1) + 2*b*n*x*x**m*sin(a + b*log(c*x**n))*cos(a + b*log(c*x**n))/(4*b**2*
m*n**2 + 4*b**2*n**2 + m**3 + 3*m**2 + 3*m + 1) + m**2*x*x**m*cos(a + b*log
(c*x**n))**2/(4*b**2*m*n**2 + 4*b**2*n**2 + m**3 + 3*m**2 + 3*m + 1) + 2*m*
x*x**m*cos(a + b*log(c*x**n))**2/(4*b**2*m*n**2 + 4*b**2*n**2 + m**3 + 3*m*
*2 + 3*m + 1) + x*x**m*cos(a + b*log(c*x**n))**2/(4*b**2*m*n**2 + 4*b**2*n*
*2 + m**3 + 3*m**2 + 3*m + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 646 vs. $2(120) = 240$.

Time = 0.28 (sec) , antiderivative size = 646, normalized size of antiderivative = 5.38

$$\int x^m \cos^2(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] 1/4*(((cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)) +
cos(2*b*log(c)))*m^2 + 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))
*sin(2*b*log(c)) + cos(2*b*log(c)))*m + 2*(b*cos(2*b*log(c))*sin(4*b*log(c)
) - b*cos(4*b*log(c))*sin(2*b*log(c)) + (b*cos(2*b*log(c))*sin(4*b*log(c))
- b*cos(4*b*log(c))*sin(2*b*log(c)) + b*sin(2*b*log(c)))*m + b*sin(2*b*log(
c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c))
+ cos(2*b*log(c)))*x*x^m*cos(2*b*log(x^n) + 2*a) - ((cos(2*b*log(c))*sin(4*
b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)) + sin(2*b*log(c)))*m^2 + 2*(cos
(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)) + sin(2*b*lo
g(c)))*m - 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b
*log(c)) + (b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*l
og(c)) + b*cos(2*b*log(c)))*m + b*cos(2*b*log(c)))*n + cos(2*b*log(c))*sin(
4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)) + sin(2*b*log(c)))*x*x^m*sin(
2*b*log(x^n) + 2*a) + 2*((cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*m^2 + 4*(b
^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2 + 2*(cos(2*b*log(c))^2 +
sin(2*b*log(c))^2)*m + cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*x*x^m)/((cos(
```

```
2*b*log(c))^2 + sin(2*b*log(c))^2)*m^3 + 3*(cos(2*b*log(c))^2 + sin(2*b*log
(c))^2)*m^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2 + (b^2*cos(2
*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*m)*n^2 + 3*(cos(2*b*log(c))^2 + sin(2
*b*log(c))^2)*m + cos(2*b*log(c))^2 + sin(2*b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 8742 vs. 2(120) = 240.

Time = 0.70 (sec) , antiderivative size = 8742, normalized size of antiderivative = 72.85

$$\int x^m \cos^2(a + b\log(cx^n))\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^2,x, algorithm="giac")
```

```
[Out] -1/4*(8*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi
*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*
b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n +
 pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)^2*tan(a)^2 + m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(a)^2 + 8*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b*n*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 4*b*n*x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 8*b^2*n^2*x*abs(x)^m*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) -
 pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 8*b^2*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x)
 - 1/4*pi*m)^2*tan(a)^2 - 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
```

1/4*pi*m)^2*tan(a)^2 - 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(a)^2 + 2*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 2*m*x*abs(x)^m*e^(pi*b*n*sgn
(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m) + 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*
sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) +
pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2 - m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*
log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m^2*x*ab
s(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b*m*n*x*abs(x)^m*
e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))^2*tan(a) + 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*s
gn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) - 16*b*m*n*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 16*b*m*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 4*m^2*x*abs(x)^m*e^(
pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 4*m^2*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 4*b*m*n*x*abs(x)^m*e^(pi*b*n*
sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(a) + 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 4*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x)
 - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 4*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + p
i*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b
*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 4*
b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*l
og(abs(x)) + b*log(abs(c)))*tan(a)^2 - m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2
- m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x
) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 +
 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/

4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(a)^2 - m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - m^2*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)^2*tan(a)^2 + 4*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(pi*b*n*sgn(x) - p
i*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*
pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
- pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(a)^2 - 8*b^2*n^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2 - 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
- pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m) + 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan
(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*b^2
*n^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b*n*x*abs(x)^m*e^(pi*
b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c
)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
+ pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(a
bs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 2*m*x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n
 - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*
sgn(x) - 1/4*pi*m)^2 + 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sg
n(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a) + 4*b*n*x*abs(x)
^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a) - 16*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b
*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) -
1/4*pi*m)*tan(a) + 16*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(
c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)*tan(a) + 8*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b
)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*ta
n(a) - 8*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) +
 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*p
i*m*sgn(x) - 1/4*pi*m)^2*tan(a) + 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 8*m*x*a
bs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
 + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 8*m*x*abs(x)^m
*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*l
og(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 8*b^2*n^2*x*abs(x)^m
*tan(a)^2 + 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b

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)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a)^2 + 4*b*n*x*abs(x)^m*e^(-pi*b
*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)
))*tan(a)^2 - 2*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a
)^2 - 2*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x
) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 - 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x)
 + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 +
8*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(
abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 8*m*x*a
bs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)
) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 2*m^2*x*abs(x
)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 2*m*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
a)^2 - 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 2*x*abs(x)^m*tan(b*n*log(abs(x)) +
 b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 4*b*m*n*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x))
+ b*log(abs(c))) - 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn
(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) + m^2*x*abs(x)^m*e^(pi*b*n
*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))
^2 + m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*
n*log(abs(x)) + b*log(abs(c)))^2 + 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi
*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b*m*n*x*abs(
x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) -
 1/4*pi*m) - 4*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*
b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4
*m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + m^2*x*abs(x)^m
*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2 + m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(pi*b*n*sgn(
x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*ta
n(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - p
i*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2 - 4*b*m*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(
c) - pi*b)*tan(a) - 4*b*m*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b)*tan(a) + 4*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 4*m^2*x*abs(x)^m*
e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*lo
g(abs(c)))*tan(a) - 4*m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c
) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 4*m^2*x*abs(x)^m*e^(-pi*
b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*t
```

an(a) + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a) + m^2*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + m^2*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 4*m*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 - x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 - 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)^2 + 4*m*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - 8*b^2*n^2*x*abs(x)^m - 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c))) - 2*m^2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 2*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 8*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 8*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 2*m^2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*b*n*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a) - 4*b*n*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a) + 8*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) + 8*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) - 8*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) + 8*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi

*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a) - 2*m^2*x
*abs(x)^m*tan(a)^2 + 2*m*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c)
 - pi*b)*tan(a)^2 + 2*m*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c)
 + pi*b)*tan(a)^2 - 2*x*abs(x)^m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan
(a)^2 + 2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 - m^2*x*abs
(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - m^2*x*abs(x)^m*e^(-
pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 4*m*x*abs(x)^m*tan(b*n*log(a
bs(x)) + b*log(abs(c)))^2 + x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn
(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + x*abs(x)^m*e^(-pi*b*n*
sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))^
2 - 4*x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*lo
g(abs(x)) + b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*x*abs(x)^m*e
^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(b*n*log(abs(x)) + b*log
(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*m*x*abs(x)^m*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi
*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b
*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4*x*abs(x)^m*e
^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(b*n*log(abs(x)) + b*log(
abs(c)))*tan(a) + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + p
i*b)*tan(b*n*log(abs(x)) + b*log(abs(c)))*tan(a) - 4*x*abs(x)^m*e^(pi*b*n*s
gn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(a)
 + 4*x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(a) - 4*m*x*abs(x)^m*tan(a)^2 + x*abs(x)^m*e^(pi*b
*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b)*tan(a)^2 + x*abs(x)^m*e^(-pi*b*n*s
gn(x) + pi*b*n - pi*b*sgn(c) + pi*b)*tan(a)^2 - 2*m^2*x*abs(x)^m - 2*m*x*ab
s(x)^m*e^(pi*b*n*sgn(x) - pi*b*n + pi*b*sgn(c) - pi*b) - 2*m*x*abs(x)^m*e^(
-pi*b*n*sgn(x) + pi*b*n - pi*b*sgn(c) + pi*b) - 2*x*abs(x)^m*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2 + 2*x*abs(x)^m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 -
 2*x*abs(x)^m*tan(a)^2 - 4*m*x*abs(x)^m - x*abs(x)^m*e^(pi*b*n*sgn(x) - pi*
b*n + pi*b*sgn(c) - pi*b) - x*abs(x)^m*e^(-pi*b*n*sgn(x) + pi*b*n - pi*b*sg
n(c) + pi*b) - 2*x*abs(x)^m)/(4*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*tan(b*n*log(ab
s(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2
*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*
m)^2 + 4*b^2*m*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*
m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^3*tan(b*n*log(abs(x))
+ b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*n^2*t
an(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 4
*b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(a)^2 + 4*b^2*n^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 3*m^2*tan(b*n*log(abs(x)) + b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*b^2*m*n^2*tan(b*n*l
og(abs(x)) + b*log(abs(c)))^2 + 4*b^2*m*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)
^2 + m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*p
i*m)^2 + 4*b^2*m*n^2*tan(a)^2 + m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*
tan(a)^2 + m^3*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 3*m*tan(b*n*log

```
(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + 4*
b^2*n^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 4*b^2*n^2*tan(1/4*pi*m*sgn
(x) - 1/4*pi*m)^2 + 3*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)^2 + 4*b^2*n^2*tan(a)^2 + 3*m^2*tan(b*n*log(abs(x)) +
b*log(abs(c)))^2*tan(a)^2 + 3*m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^
2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(a)^2 + 4*b^2*m*n^2 + m^3*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + m^3
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m*tan(b*n*log(abs(x)) + b*log(abs(c)
))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^3*tan(a)^2 + 3*m*tan(b*n*log(abs
(x)) + b*log(abs(c)))^2*tan(a)^2 + 3*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*ta
n(a)^2 + 4*b^2*n^2 + 3*m^2*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 3*m^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 3*m^2*tan(a)^2 + tan(b*n*log(abs(x)) + b
*log(abs(c)))^2*tan(a)^2 + tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(a)^2 + m^3
 + 3*m*tan(b*n*log(abs(x)) + b*log(abs(c)))^2 + 3*m*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + 3*m*tan(a)^2 + 3*m^2 + tan(b*n*log(abs(x)) + b*log(abs(c)))^2
+ tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(a)^2 + 3*m + 1)
```

Mupad [B] (verification not implemented)

Time = 27.27 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.68

$$\int x^m \cos^2(a+b\log(cx^n))\,dx = \frac{x\,x^m}{2\,m+2}+\frac{x\,x^m\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}{4\,m+4+b\,n\,8\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{-a\,2\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,2\mathrm{i}}}\,1\mathrm{i}}{m\,4\mathrm{i}+8\,b\,n+4\mathrm{i}}$$

```
[In] int(x^m*cos(a + b*log(c*x^n))^2,x)
```

```
[Out] (x*x^m)/(2*m + 2) + (x*x^m*exp(a*2i)*(c*x^n)^(b*2i))/(4*m + b*n*8i + 4) + (
x*x^m*exp(-a*2i)/(c*x^n)^(b*2i)*1i)/(m*4i + 8*b*n + 4i)
```

3.126 $\int x^m \cos(a+b\log(cx^n))\,dx$

Optimal result 1809
Rubi [A] (verified) 1809
Mathematica [A] (verified) 1810
Maple [A] (verified) 1810
Fricas [A] (verification not implemented) 1810
Sympy [F] 1811
Maxima [B] (verification not implemented) 1811
Giac [B] (verification not implemented) 1812
Mupad [B] (verification not implemented) 1816

Optimal result

Integrand size = 15, antiderivative size = 70

$$\int x^m \cos(a+b\log(cx^n))\,dx = \frac{(1+m)x^{1+m}\cos(a+b\log(cx^n))}{(1+m)^2+b^2n^2}+\frac{bnx^{1+m}\sin(a+b\log(cx^n))}{(1+m)^2+b^2n^2}$$

```
[Out] (1+m)*x^(1+m)*cos(a+b*ln(c*x^n))/((1+m)^2+b^2*n^2)+b*n*x^(1+m)*sin(a+b*ln(c
*x^n))/((1+m)^2+b^2*n^2)
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00, number of steps used = 1, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {4574}

$$\int x^m \cos(a+b\log(cx^n))\,dx = \frac{bnx^{m+1}\sin(a+b\log(cx^n))}{b^2n^2+(m+1)^2}+\frac{(m+1)x^{m+1}\cos(a+b\log(cx^n))}{b^2n^2+(m+1)^2}$$

```
[In] Int[x^m*Cos[a + b*Log[c*x^n]],x]
```

```
[Out] ((1 + m)*x^(1 + m)*Cos[a + b*Log[c*x^n]])/((1 + m)^2 + b^2*n^2) + (b*n*x^(1
 + m)*Sin[a + b*Log[c*x^n]])/((1 + m)^2 + b^2*n^2)
```

Rule 4574

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]*((e_.)*(x_))^(m_.), x_
Symbol] :> Simp[(m + 1)*(e*x)^(m + 1)*(Cos[d*(a + b*Log[c*x^n])]/(b^2*d^2*e
*n^2 + e*(m + 1)^2)), x] + Simp[b*d*n*(e*x)^(m + 1)*(Sin[d*(a + b*Log[c*x^n
```

```
])]/(b^2*d^2*e*n^2 + e*(m + 1)^2)), x] /; FreeQ[{a, b, c, d, e, m, n}, x] &
& NeQ[b^2*d^2*n^2 + (m + 1)^2, 0]
```

Rubi steps

$$\text{integral} = \frac{(1+m)x^{1+m}\cos(a+b\log(cx^n))}{(1+m)^2+b^2n^2} + \frac{bnx^{1+m}\sin(a+b\log(cx^n))}{(1+m)^2+b^2n^2}$$

Mathematica [A] (verified)

Time = 0.11 (sec) , antiderivative size = 53, normalized size of antiderivative = 0.76

$$\int x^m\cos(a+b\log(cx^n))\,dx = \frac{x^{1+m}((1+m)\cos(a+b\log(cx^n))+bn\sin(a+b\log(cx^n)))}{1+2m+m^2+b^2n^2}$$

```
[In] Integrate[x^m*Cos[a + b*Log[c*x^n]],x]
[Out] (x^(1 + m)*((1 + m)*Cos[a + b*Log[c*x^n]] + b*n*Sin[a + b*Log[c*x^n]]))/(1
+ 2*m + m^2 + b^2*n^2)
```

Maple [A] (verified)

Time = 0.90 (sec) , antiderivative size = 63, normalized size of antiderivative = 0.90

method	result	size
parallelrisch	$\frac{x^{1+m}(\sin(a+b\ln(cx^n))bn+\cos(a+b\ln(cx^n))m+\cos(a+b\ln(cx^n)))}{b^2n^2+m^2+2m+1}$	63

```
[In] int(x^m*cos(a+b*ln(c*x^n)),x,method=_RETURNVERBOSE)
[Out] x^(1+m)/(b^2*n^2+m^2+2*m+1)*(sin(a+b*ln(c*x^n))*b*n+cos(a+b*ln(c*x^n))*m+co
s(a+b*ln(c*x^n)))
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.83

$$\int x^m\cos(a+b\log(cx^n))\,dx = \frac{bnxx^m\sin(bn\log(x)+b\log(c)+a)+(m+1)xx^m\cos(bn\log(x)+b\log(c)+a)}{b^2n^2+m^2+2m+1}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n)),x, algorithm="fricas")
```

```
[Out] (b*n*x*x^m*sin(b*n*log(x) + b*log(c) + a) + (m + 1)*x*x^m*cos(b*n*log(x) +
b*log(c) + a))/(b^2*n^2 + m^2 + 2*m + 1)
```

Sympy [F]

$$\int x^m \cos(a + b\log(cx^n))\,dx$$
$$= \begin{cases} \log(x)\cos(a) & \text{for } b = 0 \wedge m = -1 \\ \int x^m \cos\left(-a + \frac{im\log(cx^n)}{n} + \frac{i\log(cx^n)}{n}\right) dx & \text{for } b = -\frac{i(m+1)}{n} \\ \int x^m \cos\left(a + \frac{im\log(cx^n)}{n} + \frac{i\log(cx^n)}{n}\right) dx & \text{for } b = \frac{i(m+1)}{n} \\ \frac{bnxx^m \sin(a+b\log(cx^n))}{b^2n^2+m^2+2m+1} + \frac{mxx^m \cos(a+b\log(cx^n))}{b^2n^2+m^2+2m+1} + \frac{xx^m \cos(a+b\log(cx^n))}{b^2n^2+m^2+2m+1} & \text{otherwise} \end{cases}$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n)),x)
```

```
[Out] Piecewise((log(x)*cos(a), Eq(b, 0) & Eq(m, -1)), (Integral(x**m*cos(-a + I*
m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, -I*(m + 1)/n)), (Integral(x**
m*cos(a + I*m*log(c*x**n)/n + I*log(c*x**n)/n), x), Eq(b, I*(m + 1)/n)), (b
*n*x*x**m*sin(a + b*log(c*x**n))/(b**2*n**2 + m**2 + 2*m + 1) + m*x*x**m*co
s(a + b*log(c*x**n))/(b**2*n**2 + m**2 + 2*m + 1) + x*x**m*cos(a + b*log(c*
x**n))/(b**2*n**2 + m**2 + 2*m + 1), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 313 vs. $2(70) = 140$.

Time = 0.24 (sec) , antiderivative size = 313, normalized size of antiderivative = 4.47

$$\int x^m \cos(a + b\log(cx^n))\,dx$$
$$= \frac{((\cos(2\,b\log(c))\cos(b\log(c)) + \sin(2\,b\log(c))\sin(b\log(c)) + \cos(b\log(c)))m + (b\cos(b\log(c))\sin(2\,b}{}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n)),x, algorithm="maxima")
```

```
[Out] 1/2*(((cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log(c)) + cos(
b*log(c)))*m + (b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*l
og(c)) + b*sin(b*log(c)))*n + cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c
))*sin(b*log(c)) + cos(b*log(c)))*x*x^m*cos(b*log(x^n) + a) - ((cos(b*log(c
))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)) + sin(b*log(c)))*m - (b*
cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)) + b*cos(b*l
og(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)) +
 sin(b*log(c)))*x*x^m*sin(b*log(x^n) + a))/((cos(b*log(c))^2 + sin(b*log(c)
)^2)*m^2 + (b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2 + 2*(cos(b*log(c
))^2 + sin(b*log(c))^2)*m + cos(b*log(c))^2 + sin(b*log(c))^2)
```

Giac [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 5162 vs. $2(70) = 140$.

Time = 0.48 (sec) , antiderivative size = 5162, normalized size of antiderivative = 73.74

$$\int x^m \cos\left(a + b\log\left(cx^n\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n)),x, algorithm="giac")
```

```
[Out] 1/2*(2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(
x) - 1/4*pi*m)^2*tan(1/2*a) + 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*
pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(ab
s(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 2*b*n*x*abs(x)^m*e^
(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*l
og(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a
)^2 + 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
 + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sg
n(x) - 1/4*pi*m)*tan(1/2*a)^2 + 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2
*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(a
bs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 2*b*n*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n
*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2
*a)^2 - m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) -
1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x
) - 1/4*pi*m)^2*tan(1/2*a)^2 - m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*
b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c
)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 - x*abs(x)^m*e^(1/2*pi
*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(
x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 -
 x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b
)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*
pi*m)^2*tan(1/2*a)^2 + 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n +
 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2
*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 2*b*n*x*abs(x)^m*e^(1/2*pi*
b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 2*b*n*x*abs(x)^
m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m*
x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi
*m)^2 + m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
```

1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) - 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a) + 8*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 8*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 4*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 4*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 4*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) + 4*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a) - 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 - 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a)^2 + m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 2*b*n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 - 4*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + 4*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn

(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi
*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/
4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 4*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) +
 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) + 4*x*abs(x)^m*e^(
1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*lo
g(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)
 + 4*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*
pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/
4*pi*m)^2*tan(1/2*a) + x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*p
i*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1
/2*a)^2 + x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) +
 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 - 4*
x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*
tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)*tan(1/2*a)^2 + 4*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b
*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m)*tan(1/2*a)^2 + x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*
pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(
1/2*a)^2 + x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c)
+ 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 2*b*n*x*abs(x)
^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*
b*n*log(abs(x)) + 1/2*b*log(abs(c))) + 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(
x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2
*b*log(abs(c))) - m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - m*x*ab
s(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan
(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - 2*b*n*x*abs(x)^m*e^(1/2*pi*b*
n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m) + 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*s
gn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) + 4*m*x*abs(x)^m*e^(1/2*p
i*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs
(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - 4*m*x*abs(x)^m*
e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*
n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi*m*sgn(x) - 1/4*pi*m) - m*x*ab
s(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(
1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi
*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*b*
n*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(1/2*a) + 2*b*n*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi
*b*sgn(c) + 1/2*pi*b)*tan(1/2*a) - 4*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/
2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))*tan(1/2*a) - 4*m*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan
(1/2*a) + 4*m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c

) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 4*m*x*abs(x)^m*e
^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - m*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*p
i*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - m*x*abs(x)^m*e^(-1/2*pi*
b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 - x*abs(
x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/
2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 - x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x)
 + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b
*log(abs(c)))^2 + 4*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/4*pi
*m*sgn(x) - 1/4*pi*m) - 4*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1
/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan
(1/4*pi*m*sgn(x) - 1/4*pi*m) - x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 - x*abs(x)
^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4
*pi*m*sgn(x) - 1/4*pi*m)^2 - 4*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n
 + 1/2*pi*b*sgn(c) - 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))
*tan(1/2*a) - 4*x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sg
n(c) + 1/2*pi*b)*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))*tan(1/2*a) +
4*x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b
)*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)*tan(1/2*a) - 4*x*abs(x)^m*e^(-1/2*pi*b*n*
sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/4*pi*m*sgn(x) - 1/4
*pi*m)*tan(1/2*a) - x*abs(x)^m*e^(1/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b
*sgn(c) - 1/2*pi*b)*tan(1/2*a)^2 - x*abs(x)^m*e^(-1/2*pi*b*n*sgn(x) + 1/2*p
i*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b)*tan(1/2*a)^2 + m*x*abs(x)^m*e^(1/2*pi*b
*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + m*x*abs(x)^m*e^(-1/2
*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b) + x*abs(x)^m*e^(1
/2*pi*b*n*sgn(x) - 1/2*pi*b*n + 1/2*pi*b*sgn(c) - 1/2*pi*b) + x*abs(x)^m*e^
(-1/2*pi*b*n*sgn(x) + 1/2*pi*b*n - 1/2*pi*b*sgn(c) + 1/2*pi*b))/(b^2*n^2*ta
n(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 + b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*t
an(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + b^2*n^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*
log(abs(c)))^2*tan(1/2*a)^2 + b^2*n^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan
(1/2*a)^2 + m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*m
*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 2*m*tan(1/2*b*n*log(abs(x)) + 1/2*b*lo
g(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + b^2*n^2*tan(1
/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + b^2*n^2*tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2 + b^2*n^2*tan(1/2*a)^2 + m^2*tan(1/2*b*n*log(abs(x))
 + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^
2*tan(1/2*a)^2 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/4*pi*
m*sgn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 2*m*tan(1/2*b*n*log(abs(x)) + 1/2*b*l
og(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*m*tan(1/2*b*n*log(abs(x
)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + 2*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m
)^2*tan(1/2*a)^2 + b^2*n^2 + m^2*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)

```
))^2 + m^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + tan(1/2*b*n*log(abs(x)) + 1/
2*b*log(abs(c)))^2*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + m^2*tan(1/2*a)^2 + t
an(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2*tan(1/2*a)^2 + tan(1/4*pi*m*s
gn(x) - 1/4*pi*m)^2*tan(1/2*a)^2 + 2*m*tan(1/2*b*n*log(abs(x)) + 1/2*b*log(
abs(c)))^2 + 2*m*tan(1/4*pi*m*sgn(x) - 1/4*pi*m)^2 + 2*m*tan(1/2*a)^2 + m^2
 + tan(1/2*b*n*log(abs(x)) + 1/2*b*log(abs(c)))^2 + tan(1/4*pi*m*sgn(x) - 1
/4*pi*m)^2 + tan(1/2*a)^2 + 2*m + 1)
```

Mupad [B] (verification not implemented)

Time = 27.08 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00

$$\int x^m \cos\left(a+b\log\left(cx^n\right)\right)\,dx=\frac{x\,x^m\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}{2\,m+2+b\,n\,2\mathrm{i}}+\frac{x\,x^m\,\mathrm{e}^{-a\,1\mathrm{i}}\,\frac{1}{{\left(c\,x^n\right)}^{b\,1\mathrm{i}}}\,1\mathrm{i}}{m\,2\mathrm{i}+2\,b\,n+2\mathrm{i}}$$

```
[In] int(x^m*cos(a + b*log(c*x^n)),x)
```

```
[Out] (x*x^m*exp(a*1i)*(c*x^n)^(b*1i))/(2*m + b*n*2i + 2) + (x*x^m*exp(-a*1i)/(c*
x^n)^(b*1i)*1i)/(m*2i + 2*b*n + 2i)
```

3.127 $\int x^m \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result 1817
Rubi [A] (verified) 1817
Mathematica [A] (warning: unable to verify) 1819
Maple [F] 1819
Fricas [F(-2)] 1819
Sympy [F(-1)] 1820
Maxima [F] 1820
Giac [F] 1820
Mupad [F(-1)] 1820

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{1+m}\cos^{\frac{3}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(-\frac{3}{2},-\frac{2i+2im+3bn}{4bn},-\frac{2i+2im-bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[Out] 2*x^(1+m)*cos(a+b*ln(c*x^n))^(3/2)*hypergeom([-3/2, 1/4*(-2*I-2*I*m-3*b*n)/
b/n],[1/4*(-2*I-2*I*m+b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2+2*m-3*I*b*n
)/(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4582, 4580, 371}

$$\int x^m \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bn}-3\right),-\frac{2im-bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\cos^{\frac{3}{2}}(a+b\log(cx^n))}{(-3ibn+2m+2)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}}$$

```
[In] Int[x^m*Cos[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*Cos[a + b*Log[c*x^n]]^(3/2)*Hypergeometric2F1[-3/2, (-3 - ((2*
I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - b*n)/(b*n), -(E^((2*I)*a)*(c*x^
```

```
n)^((2*I)*b))])/((2 + 2*m - (3*I)*b*n)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^
(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cos^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{\frac{3ib}{2}-\frac{1+m}{n}}\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1+m}{n}}\left(1+e^{2ia}x^{2ib}\right)^{3/2}\,dx,x,cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}$$

$$= \frac{2x^{1+m}\cos^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right.}{(2+2m-3ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}}$$

Mathematica [A] (warning: unable to verify)

Time = 1.88 (sec) , antiderivative size = 204, normalized size of antiderivative = 1.57

$$\int x^m \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{x^{1+m}\left(6b^2n^2\left(1+e^{2ia}(cx^n)^{2ib}\right)\text{Hypergeometric2F1}\left(1,-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2i(a+b\log(cx^n))}\right)+(2+\right.}{(2+2m+ibn)(2+2m-3ibn)(2+2m+3ibn)\sqrt{}}$$

```
[In] Integrate[x^m*Cos[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (x^(1 + m)*(6*b^2*n^2*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Hypergeometric2F1
[1, -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n),
 -E^((2*I)*(a + b*Log[c*x^n]))] + (2 + 2*m + I*b*n)*(4*(1 + m)*Cos[a + b*Lo
g[c*x^n]]^2 + 3*b*n*Sin[2*(a + b*Log[c*x^n])])))/((2 + 2*m + I*b*n)*(2 + 2*
m - (3*I)*b*n)*(2 + 2*m + (3*I)*b*n)*Sqrt[Cos[a + b*Log[c*x^n]]])
```

Maple [F]

$$\int x^{m} \cos\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{3}{2}}dx$$

```
[In] int(x^m*cos(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(x^m*cos(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \cos^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F(-1)]

Timed out.

$$\int x^m \cos^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \text{Timed out}$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n))**(3/2),x)
[Out] Timed out
```

Maxima [F]

$$\int x^m \cos^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \int x^m \cos(b\log(cx^n) + a)^{\frac{3}{2}}\, dx$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m*cos(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int x^m \cos^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \int x^m \cos(b\log(cx^n) + a)^{\frac{3}{2}}\, dx$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(x^m*cos(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \cos^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \int x^m \cos(a + b\ln(c\,x^n))^{3/2}\, dx$$

```
[In] int(x^m*cos(a + b*log(c*x^n))^(3/2),x)
[Out] int(x^m*cos(a + b*log(c*x^n))^(3/2), x)
```

3.128 $\int x^m \sqrt{\cos(a+b\log(cx^n))}\,dx$

Optimal result 1821
Rubi [A] (verified) 1821
Mathematica [B] (verified) 1823
Maple [F] 1823
Fricas [F(-2)] 1824
Sympy [F] 1824
Maxima [F] 1824
Giac [F] 1824
Mupad [F(-1)] 1825

Optimal result

Integrand size = 19, antiderivative size = 129

$$\int x^m \sqrt{\cos(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\sqrt{\cos(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+2im+bn}{4bn},-\frac{2i+2im-3bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}}$$

```
[Out] 2*x^(1+m)*hypergeom([-1/2, 1/4*(-2*I-2*I*m-b*n)/b/n],[1/4*(-2*I-2*I*m+3*b*n
)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*cos(a+b*ln(c*x^n))^(1/2)/(2+2*m-I*b*n)/
(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.98, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4582, 4580, 371}

$$\int x^m \sqrt{\cos(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bn}-1\right),-\frac{2im-3bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\cos(a+b\log(cx^n))}}{(-ibn+2m+2)\sqrt{1+e^{2ia}(cx^n)^{2ib}}}$$

```
[In] Int[x^m*Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Sqrt[Cos[a + b*Log[c*x^n]]]*Hypergeometric2F1[-1/2, (-1 - ((2*
I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*
```

```
x^n)^((2*I)*b))])/((2 + 2*m - I*b*n)*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)
])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sqrt{\cos(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{\frac{ib}{2}-\frac{1+m}{n}}\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1+m}{n}}\sqrt{1+e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{n\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}}$$

$$= \frac{2x^{1+m}\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-3bn}{4bn},-e^{2ia}(cx^n)^{2}\right.}{(2+2m-ibn)\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 436 vs. 2(129) = 258.

Time = 5.76 (sec) , antiderivative size = 436, normalized size of antiderivative = 3.38

$$\int x^m \sqrt{\cos(a+b\log(cx^n))}\,dx =$$
$$-\frac{2be^{ia}nx^{1+m}(cx^n)^{ib}\sqrt{2+2e^{2ia}(cx^n)^{2ib}}\left((2i+2im+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{i\left(1+m+\frac{3ibn}{2}\right)}{2bn},-\right.\right.}{(2+2m-ibn)(2+2m+3ibn)\sqrt{e^{-ia}(cx^n)^{-ib}+e}}$$
$$+\frac{2x^{1+m}\sqrt{\cos(a+b\log(cx^n))}\cos(a-bn\log(x)+b\log(cx^n))}{2(1+m)\cos(a-bn\log(x)+b\log(cx^n))-bn\sin(a-bn\log(x)+b\log(cx^n))}$$

```
[In] Integrate[x^m*Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (-2*b*E^(I*a)*n*x^(1 + m)*(c*x^n)^(I*b)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*
I)*b)]*((2*I + (2*I)*m + b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, ((-1/2*I
)*(1 + m + ((3*I)/2)*b*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^(
(2*I)*a)*(c*x^n)^((2*I)*b))] + (-2*I - (2*I)*m + 3*b*n)*Hypergeometric2F1[1
/2, -1/4*(2*I + (2*I)*m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -
(E^((2*I)*a)*(c*x^n)^((2*I)*b))]))/((2 + 2*m - I*b*n)*(2 + 2*m + (3*I)*b*n)
*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b)]*((2 + 2*m - I*b*n)
*x^((2*I)*b*n) + E^((2*I)*a)*(2 + 2*m + I*b*n)*(c*x^n)^((2*I)*b))) + (2*x^(
1 + m)*Sqrt[Cos[a + b*Log[c*x^n]]]*Cos[a - b*n*Log[x] + b*Log[c*x^n]])/(2*(
1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]] - b*n*Sin[a - b*n*Log[x] + b*Log[
c*x^n]])
```

Maple [F]

$$\int x^m \sqrt{\cos(a+b\ln(c\,x^n))}dx$$

```
[In] int(x^m*cos(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(x^m*cos(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \sqrt{\cos(a + b\log(cx^n))}\, dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int x^m \sqrt{\cos(a + b\log(cx^n))}\, dx = \int x^m \sqrt{\cos(a + b\log(cx^n))}\, dx$$

```
[In] integrate(x**m*cos(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(x**m*sqrt(cos(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int x^m \sqrt{\cos(a + b\log(cx^n))}\, dx = \int x^m \sqrt{\cos(b\log(cx^n) + a)}\, dx$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x^m*sqrt(cos(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int x^m \sqrt{\cos(a + b\log(cx^n))}\, dx = \int x^m \sqrt{\cos(b\log(cx^n) + a)}\, dx$$

```
[In] integrate(x^m*cos(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x^m*sqrt(cos(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,dx = \int x^m\,\sqrt{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)}\,dx$$

```
[In] int(x^m*cos(a + b*log(c*x^n))^(1/2),x)
[Out] int(x^m*cos(a + b*log(c*x^n))^(1/2), x)
```

3.129 $\int \frac{x^m}{\sqrt{\cos(a+b\log(cx^n))}}\,dx$

Optimal result . . . 1826
Rubi [A] (verified) . . . 1826
Mathematica [A] (warning: unable to verify) . . . 1827
Maple [F] . . . 1828
Fricas [F(-2)] . . . 1828
Sympy [F] . . . 1828
Maxima [F] . . . 1829
Giac [F] . . . 1829
Mupad [F(-1)] . . . 1829

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int \frac{x^m}{\sqrt{\cos(a+b\log(cx^n))}}\,dx = \frac{2x^{1+m}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+ibn)\sqrt{\cos(a+b\log(cx^n))}}$$

```
[Out] 2*x^(1+m)*hypergeom([1/2, 1/4*(-2*I-2*I*m+b*n)/b/n],[1/4*(-2*I-2*I*m+5*b*n)
/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)/(2+
2*m+I*b*n)/cos(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 130, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {4582, 4580, 371}

$$\int \frac{x^m}{\sqrt{\cos(a+b\log(cx^n))}}\,dx = \frac{2x^{m+1}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2im-bn+2i}{4bn},-\frac{2im-5bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(ibn+2m+2)\sqrt{\cos(a+b\log(cx^n))}}$$

```
[In] Int[x^m/Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2,
 -1/4*(2*I + (2*I)*m - b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n), -(E^
```

```
((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 + 2*m + I*b*n)*Sqrt[Cos[a + b*Log[c*x^n]
]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\sqrt{\cos(a+b\log(x))}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{ib}{2}-\frac{1+m}{n}}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{ib}{2}+\frac{1+m}{n}}}{\sqrt{1+e^{2ia}x^{2ib}}}\,dx, x, cx^n\right)}{n\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}$$

$$= \frac{2x^{1+m}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2}, -\frac{2i+2im-bn}{4bn}, -\frac{2i+2im-5bn}{4bn}, -e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+ibn)\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}$$

Mathematica [A] (warning: unable to verify)

Time = 0.69 (sec) , antiderivative size = 119, normalized size of antiderivative = 0.92

$$\int \frac{x^m}{\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}\,dx$$
$$= \frac{2\left(1+e^{2i(a+b\log(cx^n))}\right)x^{1+m}\,\text{Hypergeometric2F1}\left(1, -\frac{2i+2im-3bn}{4bn}, -\frac{2i+2im-5bn}{4bn}, -e^{2i(a+b\log(cx^n))}\right)}{(2+2m+ibn)\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}}$$

```
[In] Integrate[x^m/Sqrt[Cos[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*(1 + E^((2*I)*(a + b*Log[c*x^n])))*x^(1 + m)*Hypergeometric2F1[1, -1/4*(
2*I + (2*I)*m - 3*b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n), -E^((2*I)
*(a + b*Log[c*x^n]))])/((2 + 2*m + I*b*n)*Sqrt[Cos[a + b*Log[c*x^n]]])
```

Maple [F]

$$\int \frac{x^m}{\sqrt{\cos\left(a + b\ln\left(c\,x^n\right)\right)}}dx$$

```
[In] int(x^m/cos(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(x^m/cos(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\sqrt{\cos\left(a + b\log\left(cx^n\right)\right)}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >> Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{x^m}{\sqrt{\cos\left(a + b\log\left(cx^n\right)\right)}}\,dx = \int \frac{x^m}{\sqrt{\cos\left(a + b\log\left(cx^n\right)\right)}}\,dx$$

```
[In] integrate(x**m/cos(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(x**m/sqrt(cos(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{x^m}{\sqrt{\cos(a + b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\cos(b\log(cx^n) + a)}}\,dx$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x^m/sqrt(cos(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \frac{x^m}{\sqrt{\cos(a + b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\cos(b\log(cx^n) + a)}}\,dx$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x^m/sqrt(cos(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\sqrt{\cos(a + b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\cos(a + b\ln(c\,x^n))}}\,dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n))^(1/2),x)
[Out] int(x^m/cos(a + b*log(c*x^n))^(1/2), x)
```

3.130 $\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result . . . 1830
Rubi [A] (verified) . . . 1830
Mathematica [B] (verified) . . . 1832
Maple [F] . . . 1832
Fricas [F(-2)] . . . 1833
Sympy [F] . . . 1833
Maxima [F] . . . 1833
Giac [F(-1)] . . . 1833
Mupad [F(-1)] . . . 1834

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-7bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+3ibn)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x^(1+m)*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*hypergeom([3/2, 1/4*(-2*I-2*
I*m+3*b*n)/b/n],[1/4*(-2*I-2*I*m+7*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(
2+2*m+3*I*b*n)/cos(a+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {4582, 4580, 371}

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(m+1)}{bn}\right),-\frac{2im-7bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(3ibn+2m+2)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[x^m/Cos[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Hypergeometric2F1[3/
2, (3 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^(
```

```
(2*I)*a)*(c*x^n)^((2*I)*b))])/((2 + 2*m + (3*I)*b*n)*Cos[a + b*Log[c*x^n]]^
(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\cos^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{3ib}{2}-\frac{1+m}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3ib}{2}+\frac{1+m}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^{3/2}}\,dx, x, cx^n\right)}{n\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

$$= \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-7bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+3ibn)\cos^{\frac{3}{2}}(a+b\log(cx^n))}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 487 vs. 2(130) = 260.

Time = 3.98 (sec) , antiderivative size = 487, normalized size of antiderivative = 3.75

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx =$$

$$-\frac{x^{1+m-ibn}\left(\left(4+8m+4m^2+b^2n^2\right)x^{2ibn}\sqrt{2+2e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(\frac{1}{2}\right.\right.}{}$$

[In] Integrate[x^m/Cos[a + b*Log[c*x^n]]^(3/2),x]

[Out] -((x^(1 + m - I*b*n)*((4 + 8*m + 4*m^2 + b^2*n^2)*x^((2*I)*b*n)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Cos[a + b*Log[c*x^n]]]*Hypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I)/2)*b*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] + (-2*I - (2*I)*m + 3*b*n)*((-2*I - (2*I)*m + b*n)*Sqrt[2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Cos[a + b*Log[c*x^n]]]*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] - 2*x^(I*b*n)*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b)]*(b*n*Cos[b*n*Log[x]] - 2*(1 + m)*Sin[b*n*Log[x]]))))/(b*n*(-2*I - (2*I)*m + 3*b*n)*Sqrt[1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b)]*Sqrt[Cos[a + b*Log[c*x^n]]]*(-2*(1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n*Sin[a - b*n*Log[x] + b*Log[c*x^n]])))

Maple [F]

$$\int \frac{x^m}{\cos\left(a+b\ln\left(c\,x^n\right)\right)^{\frac{3}{2}}}dx$$

[In] int(x^m/cos(a+b*ln(c*x^n))^(3/2),x)

[Out] int(x^m/cos(a+b*ln(c*x^n))^(3/2),x)

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(x**m/cos(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(x**m/cos(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\cos(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m/cos(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\cos^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^{3/2}}\,dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n))^(3/2),x)
[Out] int(x^m/cos(a + b*log(c*x^n))^(3/2), x)
```

3.131 $\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 1835
Rubi [A] (verified) 1835
Mathematica [A] (warning: unable to verify) 1837
Maple [F] 1837
Fricas [F(-2)] 1837
Sympy [F(-1)] 1838
Maxima [F] 1838
Giac [F(-1)] 1838
Mupad [F(-1)] 1838

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},-\frac{2i+2im-5bn}{4bn},-\frac{2i+2im-9bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+5ibn)\cos^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x^(1+m)*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*hypergeom([5/2, 1/4*(-2*I-2*
I*m+5*b*n)/b/n],[1/4*(-2*I-2*I*m+9*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(
2+2*m+5*I*b*n)/cos(a+b*ln(c*x^n))^(5/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4582, 4580, 371}

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(m+1)}{bn}\right),-\frac{2im-9bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(5ibn+2m+2)\cos^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[In] Int[x^m/Cos[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Hypergeometric2F1[5/
2, (5 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - 9*b*n)/(b*n), -(E^(
```

```
(2*I)*a)*(c*x^n)^((2*I)*b))]])/((2 + 2*m + (5*I)*b*n)*Cos[a + b*Log[c*x^n]]^
(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\cos^{\frac{5}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{-\frac{5ib}{2}-\frac{1+m}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{5ib}{2}+\frac{1+m}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^{5/2}}\,dx, x, cx^n\right)}{n\cos^{\frac{5}{2}}(a+b\log(cx^n))}\\
&= \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-9bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m+5ibn)\cos^{\frac{5}{2}}(a+b\log(cx^n))}
\end{aligned}$$

Mathematica [A] (warning: unable to verify)

Time = 1.98 (sec) , antiderivative size = 205, normalized size of antiderivative = 1.58

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\left((2+2m-ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)\cos(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(1,-\frac{2i+2im-3bn}{4bn},-\frac{2i+2\cdots}{\cdots}\right.\right.}{\cdots}$$

```
[In] Integrate[x^m/Cos[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*((2 + 2*m - I*b*n)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Cos[a +
 b*Log[c*x^n]]*Hypergeometric2F1[1, -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -1/
4*(2*I + (2*I)*m - 5*b*n)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + b*n*Sec[a
 - b*n*Log[x] + b*Log[c*x^n]]*Sin[b*n*Log[x]] + Cos[a + b*Log[c*x^n]]*(-2*(
1 + m) + b*n*Tan[a - b*n*Log[x] + b*Log[c*x^n]])))/(3*b^2*n^2*Cos[a + b*Log
[c*x^n]]^(3/2))
```

Maple [F]

$$\int \frac{x^m}{\cos(a+b\ln(c\,x^n))^{\frac{5}{2}}}dx$$

```
[In] int(x^m/cos(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(x^m/cos(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(x**m/cos(a+b*ln(c*x**n))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\cos(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(x^m/cos(b*log(c*x^n) + a)^(5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(x^m/cos(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\cos^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^{5/2}}\,dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n))^(5/2),x)
[Out] int(x^m/cos(a + b*log(c*x^n))^(5/2), x)
```

3.132 $\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx$

Optimal result 1839
Rubi [A] (verified) 1839
Mathematica [A] (warning: unable to verify) 1840
Maple [F] 1841
Fricas [F] 1841
Sympy [F(-1)] 1841
Maxima [F] 1841
Giac [F] 1842
Mupad [F(-1)] 1842

Optimal result

Integrand size = 21, antiderivative size = 144

$$\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\cos^p(d(a+b\log(cx^n)))\,\text{Hypergeometric2F1}\left(-p,-\frac{i+im+bdnp}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}\right.\right.}{e(1+m-ibdnp)}$$

```
[Out] (e*x)^(1+m)*cos(d*(a+b*ln(c*x^n)))^p*hypergeom([-p, 1/2*(-I-I*m-b*d*n*p)/b/
d/n],[1-1/2*I*(1+m)/b/d/n-1/2*p],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/e/(1+m-I*
b*d*n*p)/((1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 144, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4582, 4580, 371}

$$\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{im+bdnp+i}{2bdn},\frac{1}{2}\left(-\frac{i(m+1)}{bdn}-p+2\right),-e^{2iad}(cx^n)^{2ib}\right.}{e(-ibdnp+m+1)}$$

```
[In] Int[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*Cos[d*(a + b*Log[c*x^n])]^p*Hypergeometric2F1[-p, -1/2*(I +
I*m + b*d*n*p)/(b*d*n), (2 - (I*(1 + m))/(b*d*n) - p)/2, -(E^((2*I)*a*d)*(c
*x^n)^((2*I)*b*d))])/(e*(1 + m - I*b*d*n*p)*(1 + E^((2*I)*a*d)*(c*x^n)^((2*
I)*b*d))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cos^p(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}+ibdp}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\cos^p\left(d(a+b\log\left(cx^n\right))\right)\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}-ibdp}(1\right.}{en}$$

$$= \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\cos^p\left(d(a+b\log\left(cx^n\right))\right)\text{Hypergeometric2F1}\left(-p,-\frac{i+im+bdnp}{2bdn},\frac{1}{2}\left(2\right.\right.}{e(1+m-ibdnp)}$$

Mathematica [A] (warning: unable to verify)

Time = 1.52 (sec) , antiderivative size = 170, normalized size of antiderivative = 1.18

$$\int (ex)^m\cos^p\left(d(a+b\log\left(cx^n\right))\right)\,dx$$

$$= \frac{x(ex)^m\left(e^{-iad}(cx^n)^{-ibd}+e^{iad}(cx^n)^{ibd}\right)^p\left(2+2e^{-2iad}(cx^n)^{-2ibd}\right)^{-p}\text{Hypergeometric2F1}\left(-p,\frac{i(1+m+ibdnp)}{2bdn},1\right.}{1+m+ibdnp}$$

```
[In] Integrate[(e*x)^m*Cos[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(e*x)^m*(1/(E^(I*a*d)*(c*x^n)^(I*b*d)) + E^(I*a*d)*(c*x^n)^(I*b*d))^p*Hy
pergeometric2F1[-p, ((I/2)*(1 + m + I*b*d*n*p))/(b*d*n), 1 + ((I/2)*(1 + m)
)/(b*d*n) - p/2, -(1/(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))])/((1 + m + I*b*d
*n*p)*(2 + 2/(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p)
```

Maple [F]

$$\int \left(e x \right)^{m} \cos \left(d \left(a +b \ln \left(c \,x^{n}\right)\right)\right)^{p}d x$$

```
[In] int((e*x)^m*cos(d*(a+b*ln(c*x^n)))^p,x)
[Out] int((e*x)^m*cos(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cos\left((b\log(cx^n)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*cos(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*cos(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F(-1)]

Timed out.

$$\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)**m*cos(d*(a+b*ln(c*x**n)))**p,x)
[Out] Timed out
```

Maxima [F]

$$\int (ex)^m \cos^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cos\left((b\log(cx^n)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*cos(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*cos((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F]

$$\int (ex)^m \cos^p(d(a + b\log(cx^n)))\,dx = \int (ex)^m \cos((b\log(cx^n) + a)d)^p\,dx$$

```
[In] integrate((e*x)^m*cos(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*cos((b*log(c*x^n) + a)*d)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cos^p(d(a + b\log(cx^n)))\,dx = \int \cos(d(a + b\ln(c\,x^n)))^p\,(e\,x)^m\,dx$$

```
[In] int(cos(d*(a + b*log(c*x^n)))^p*(e*x)^m,x)
[Out] int(cos(d*(a + b*log(c*x^n)))^p*(e*x)^m, x)
```

3.133 $\int x \cos^p(a+b\log(cx^n))\,dx$

Optimal result 1843
Rubi [A] (verified) 1843
Mathematica [A] (verified) 1844
Maple [F] 1845
Fricas [F] 1845
Sympy [F] 1845
Maxima [F] 1845
Giac [F] 1846
Mupad [F(-1)] 1846

Optimal result

Integrand size = 15, antiderivative size = 114

$$\int x\cos^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(2-\frac{2i}{bn}-p\right),-e^{2ia}(\right.}{2-ibnp}$$

```
[Out] x^2*cos(a+b*ln(c*x^n))^p*hypergeom([-p, -I/b/n-1/2*p],[1-I/b/n-1/2*p],-exp(
2*I*a)*(c*x^n)^(2*I*b))/(2-I*b*n*p)/((1+exp(2*I*a)*(c*x^n)^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 114, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4582, 4580, 371}

$$\int x\cos^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-p-\frac{2i}{bn}\right),-p,\frac{1}{2}\left(-p-\frac{2i}{bn}+2\right),-e^{2ia}(cx^n)^{2ib}\right)\cos^p(a+b}{2-ibnp}$$

```
[In] Int[x*Cos[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x^2*Cos[a + b*Log[c*x^n]]^p*Hypergeometric2F1[((-2*I)/(b*n) - p)/2, -p, (2
 - (2*I)/(b*n) - p)/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - I*b*n*p)*(1
 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4582

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cos[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\cos^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-\frac{2}{n}+ibp}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}-ibp}\left(1+e^{2ia}x^{2ib}\right)^p\,dx,x\right.}{n}$$

$$= \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(\frac{1}{2}\left(-\frac{2i}{bn}-p\right),-p,\frac{1}{2}\left(2-\frac{2i}{bn}-p\right),\right.}{2-ibnp}$$

Mathematica [A] (verified)

Time = 0.78 (sec) , antiderivative size = 141, normalized size of antiderivative = 1.24

$$\int x\cos^p\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= \frac{ix^2\left(e^{-ia}(cx^n)^{-ib}+e^{ia}(cx^n)^{ib}\right)^p\left(2+2e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-\frac{i}{bn}-\frac{p}{2},-p,1-\frac{i}{bn}-\frac{p}{2},-e^{2ia}\right.}{2i+bnp}$$

```
[In] Integrate[x*Cos[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (I*x^2*(1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b))^p*Hypergeometric
2F1[(-I)/(b*n) - p/2, -p, 1 - I/(b*n) - p/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b
))])/((2*I + b*n*p)*(2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Maple [F]

$$\int x\cos\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(x*cos(a+b*ln(c*x^n))^p,x)
[Out] int(x*cos(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int x\cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\cos\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(x*cos(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int x\cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\cos^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*cos(a+b*ln(c*x**n))**p,x)
[Out] Integral(x*cos(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int x\cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\cos\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(x*cos(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int x\cos^p(a+b\log(cx^n))\,dx=\int x\cos(b\log(cx^n)+a)^p\,dx$$

```
[In] integrate(x*cos(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(x*cos(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int x\cos^p(a+b\log(cx^n))\,dx=\int x\cos\left(a+b\ln\left(c\,x^n\right)\right)^p\,dx$$

```
[In] int(x*cos(a + b*log(c*x^n))^p,x)
[Out] int(x*cos(a + b*log(c*x^n))^p, x)
```

3.134 $\int \cos^p(a+b\log(cx^n))\,dx$

Optimal result 1847
Rubi [A] (verified) 1847
Mathematica [A] (verified) 1848
Maple [F] 1849
Fricas [F] 1849
Sympy [F] 1849
Maxima [F] 1849
Giac [F] 1850
Mupad [F(-1)] 1850

Optimal result

Integrand size = 13, antiderivative size = 112

$$\int \cos^p(a+b\log(cx^n))\,dx = \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}-p\right),-e^{2ia}(cx^n)^{2i}\right.}{1-ibnp}$$

```
[Out] x*cos(a+b*ln(c*x^n))^p*hypergeom([-p, 1/2*(-I-b*n*p)/b/n],[1-1/2*I/b/n-1/2*
p],-exp(2*I*a)*(c*x^n)^(2*I*b))/(1-I*b*n*p)/((1+exp(2*I*a)*(c*x^n)^(2*I*b))
^p)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 112, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4572, 4580, 371}

$$\int \cos^p(a+b\log(cx^n))\,dx = \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{bnp+i}{2bn},\frac{1}{2}\left(-p-\frac{i}{bn}+2\right),-e^{2ia}(cx^n)^{2ib}\right)\cos^p(a+b\log(c\right.}{1-ibnp}$$

```
[In] Int[Cos[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x*Cos[a + b*Log[c*x^n]]^p*Hypergeometric2F1[-p, -1/2*(I + b*n*p)/(b*n), (2
 - I/(b*n) - p)/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - I*b*n*p)*(1 + E
^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4572

```
Int[Cos[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cos[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4580

```
Int[Cos[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_)*((e_.)*(x_))^(m_.), x_Symbol] :
> Dist[Cos[d*(a + b*Log[x])]^p*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p
), Int[(e*x)^m*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p)), x], x] /; Fre
eQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cos^p(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}+ibp}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}-ibp}\left(1+e^{2ia}x^{2ib}\right)^p\,dx, x,\right.}{n}$$

$$= \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{-p}\cos^p\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}-p\right),-e^{2ia}\right.}{1-ibnp}$$

Mathematica [A] (verified)

Time = 0.58 (sec) , antiderivative size = 143, normalized size of antiderivative = 1.28

$$\int\cos^p\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= \frac{ix\left(e^{-ia}(cx^n)^{-ib}+e^{ia}(cx^n)^{ib}\right)^p\left(2+2e^{2ia}(cx^n)^{2ib}\right)^{-p}\text{Hypergeometric2F1}\left(-p,-\frac{i+bnp}{2bn},1-\frac{i}{2bn}-\frac{p}{2},-e^{2ia}(c\right.}{i+bnp}$$

```
[In] Integrate[Cos[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (I*x*(1/(E^(I*a)*(c*x^n)^(I*b)) + E^(I*a)*(c*x^n)^(I*b))^p*Hypergeometric2F
1[-p, -1/2*(I + b*n*p)/(b*n), 1 - (I/2)/(b*n) - p/2, -(E^((2*I)*a)*(c*x^n)^
((2*I)*b))])/((I + b*n*p)*(2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p)
```

Maple [F]

$$\int \cos \left(a+b\ln \left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(cos(a+b*ln(c*x^n))^p,x)
[Out] int(cos(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int \cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \cos\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(cos(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int \cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \cos^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(cos(a+b*ln(c*x**n))**p,x)
[Out] Integral(cos(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int \cos^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \cos\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(cos(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int \cos^p(a+b\log(cx^n))\ dx = \int \cos(b\log(cx^n)+a)^p\ dx$$

```
[In] integrate(cos(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(cos(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \cos^p(a+b\log(cx^n))\ dx = \int \cos(a+b\ \ln(c\,x^n))^p\,dx$$

```
[In] int(cos(a + b*log(c*x^n))^p,x)
[Out] int(cos(a + b*log(c*x^n))^p, x)
```

3.135 $\int x^3 \tan(a + i\log(x))\,dx$

Optimal result 1851
Rubi [A] (verified) 1851
Mathematica [B] (verified) 1852
Maple [A] (verified) 1853
Fricas [A] (verification not implemented) 1853
Sympy [A] (verification not implemented) 1854
Maxima [B] (verification not implemented) 1854
Giac [A] (verification not implemented) 1854
Mupad [B] (verification not implemented) 1855

Optimal result

Integrand size = 13, antiderivative size = 47

$$\int x^3 \tan(a + i\log(x))\,dx = -ie^{2ia}x^2 + \frac{ix^4}{4} + ie^{4ia}\log\left(e^{2ia} + x^2\right)$$

```
[Out] -I*exp(2*I*a)*x^2+1/4*I*x^4+I*exp(4*I*a)*ln(exp(2*I*a)+x^2)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 47, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.308, Rules used = {4591, 456, 457, 78}

$$\int x^3 \tan(a + i\log(x))\,dx = -ie^{2ia}x^2 + ie^{4ia}\log\left(x^2 + e^{2ia}\right) + \frac{ix^4}{4}$$

```
[In] Int[x^3*Tan[a + I*Log[x]],x]
```

```
[Out] (-I)*E^((2*I)*a)*x^2 + (I/4)*x^4 + I*E^((4*I)*a)*Log[E^((2*I)*a) + x^2]
```

Rule 78

```
Int[((a_.) + (b_.)*(x_))*((c_) + (d_.)*(x_))^(n_.)*((e_.) + (f_.)*(x_))^(p_
.), x_Symbol] :> Int[ExpandIntegrand[(a + b*x)*(c + d*x)^n*(e + f*x)^p, x],
 x] /; FreeQ[{a, b, c, d, e, f, n}, x] && NeQ[b*c - a*d, 0] && ((ILtQ[n, 0]
 && ILtQ[p, 0]) || EqQ[p, 1] || (IGtQ[p, 0] && ( !IntegerQ[n] || LeQ[9*p +
5*(n + 2), 0] || GeQ[n + p + 1, 0] || (GeQ[n + p + 2, 0] && RationalQ[a, b,
 c, d, e, f]))))
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 457

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[x^(Simplify[(m + 1)/n] - 1)*(a + b*x)^p
*(c + d*x)^q, x], x, x^n], x] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[
b*c - a*d, 0] && IntegerQ[Simplify[(m + 1)/n]]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)x^3}{1+\frac{e^{2ia}}{x^2}}\,dx \\
&= \int \frac{x^3(-ie^{2ia}+ix^2)}{e^{2ia}+x^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{(-ie^{2ia}+ix)\,x}{e^{2ia}+x}\,dx, x, x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-2ie^{2ia}+ix+\frac{2ie^{4ia}}{e^{2ia}+x}\right)\,dx, x, x^2\right) \\
&= -ie^{2ia}x^2+\frac{ix^4}{4}+ie^{4ia}\log\left(e^{2ia}+x^2\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 132 vs. $2(47) = 94$.

Time = 0.03 (sec) , antiderivative size = 132, normalized size of antiderivative = 2.81

$$\int x^3\tan(a+i\log(x))\,dx = \frac{ix^4}{4}-ix^2\cos(2a)+\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\cos(4a)+\frac{1}{2}i\cos(4a)\log\left(1+x^4+2x^2\cos(2a)\right)+x^2\sin(2a)+i\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\sin(4a)-\frac{1}{2}\log\left(1+x^4+2x^2\cos(2a)\right)\sin(4a)$$

```
[In] Integrate[x^3*Tan[a + I*Log[x]],x]
```

```
[Out] (I/4)*x^4 - I*x^2*Cos[2*a] + ArcTan[((1 + x^2)*Cos[a])/(Sin[a] - x^2*Sin[a]
)]*Cos[4*a] + (I/2)*Cos[4*a]*Log[1 + x^4 + 2*x^2*Cos[2*a]] + x^2*Sin[2*a] +
 I*ArcTan[((1 + x^2)*Cos[a])/(Sin[a] - x^2*Sin[a])]*Sin[4*a] - (Log[1 + x^4
 + 2*x^2*Cos[2*a]]*Sin[4*a])/2
```

Maple [A] (verified)

Time = 4.36 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.79

method	result	size
risch	$-i\mathrm{e}^{2ia}x^2+\frac{ix^4}{4}+i\mathrm{e}^{4ia}\ln\left(\mathrm{e}^{2ia}+x^2\right)$	37

```
[In] int(x^3*tan(a+I*ln(x)),x,method=_RETURNVERBOSE)
```

```
[Out] -I*exp(2*I*a)*x^2+1/4*I*x^4+I*exp(4*I*a)*ln(exp(2*I*a)+x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 30, normalized size of antiderivative = 0.64

$$\int x^3\tan(a+i\log(x))\,dx = \frac{1}{4}i\,x^4-i\,x^2e^{(2i\,a)}+i\,e^{(4i\,a)}\log\left(x^2+e^{(2i\,a)}\right)$$

```
[In] integrate(x^3*tan(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] 1/4*I*x^4 - I*x^2*e^(2*I*a) + I*e^(4*I*a)*log(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.12 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.79

$$\int x^3 \tan(a + i \log(x))\, dx = \frac{ix^4}{4} - ix^2e^{2ia} + ie^{4ia} \log\left(x^2 + e^{2ia}\right)$$

```
[In] integrate(x**3*tan(a+I*ln(x)),x)
[Out] I*x**4/4 - I*x**2*exp(2*I*a) + I*exp(4*I*a)*log(x**2 + exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 88 vs. 2(30) = 60.

Time = 0.20 (sec) , antiderivative size = 88, normalized size of antiderivative = 1.87

$$\int x^3 \tan(a + i \log(x))\, dx = \frac{1}{4} i x^4 + x^2(-i \cos(2a) + \sin(2a)) - (\cos(4a) + i \sin(4a)) \arctan\left(\sin(2a), x^2 + \cos(2a)\right) + \frac{1}{2} (i \cos(4a) - \sin(4a)) \log\left(x^4 + 2x^2 \cos(2a) + \cos(2a)^2 + \sin(2a)^2\right)$$

```
[In] integrate(x^3*tan(a+I*log(x)),x, algorithm="maxima")
[Out] 1/4*I*x^4 + x^2*(-I*cos(2*a) + sin(2*a)) - (cos(4*a) + I*sin(4*a))*arctan2(
sin(2*a), x^2 + cos(2*a)) + 1/2*(I*cos(4*a) - sin(4*a))*log(x^4 + 2*x^2*cos
(2*a) + cos(2*a)^2 + sin(2*a)^2)
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.79

$$\int x^3 \tan(a + i \log(x))\, dx = \frac{1}{4} i x^4 - i x^2 e^{(2ia)} - \frac{1}{2} \pi e^{(4ia)} + i e^{(4ia)} \log\left(x^2 + e^{(2ia)}\right)$$

```
[In] integrate(x^3*tan(a+I*log(x)),x, algorithm="giac")
[Out] 1/4*I*x^4 - I*x^2*e^(2*I*a) - 1/2*pi*e^(4*I*a) + I*e^(4*I*a)*log(x^2 + e^(2
*I*a))
```

Mupad [B] (verification not implemented)

Time = 25.98 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.77

$$\int x^3 \tan(a + i \log(x))\, dx = \mathrm{e}^{a\,4\mathrm{i}} \ln\left(x^2 + \mathrm{e}^{a\,2\mathrm{i}}\right)\, 1\mathrm{i} - x^2\, \mathrm{e}^{a\,2\mathrm{i}}\, 1\mathrm{i} + \frac{x^4\, 1\mathrm{i}}{4}$$

```
[In] int(x^3*tan(a + log(x)*1i),x)
[Out] exp(a*4i)*log(exp(a*2i) + x^2)*1i - x^2*exp(a*2i)*1i + (x^4*1i)/4
```

3.136 $\int x^2 \tan(a+i\log(x))\,dx$

Optimal result 1856
Rubi [A] (verified) 1856
Mathematica [A] (verified) 1858
Maple [A] (verified) 1858
Fricas [A] (verification not implemented) 1858
Sympy [A] (verification not implemented) 1859
Maxima [B] (verification not implemented) 1859
Giac [A] (verification not implemented) 1859
Mupad [B] (verification not implemented) 1860

Optimal result

Integrand size = 13, antiderivative size = 43

$$\int x^2 \tan(a+i\log(x))\,dx = -2ie^{2ia}x + \frac{ix^3}{3} + 2ie^{3ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] -2*I*exp(2*I*a)*x+1/3*I*x^3+2*I*exp(3*I*a)*arctan(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 43, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.385, Rules used = {4591, 456, 470, 327, 209}

$$\int x^2 \tan(a+i\log(x))\,dx = 2ie^{3ia}\arctan\left(e^{-ia}x\right) - 2ie^{2ia}x + \frac{ix^3}{3}$$

```
[In] Int[x^2*Tan[a + I*Log[x]],x]
[Out] (-2*I)*E^((2*I)*a)*x + (I/3)*x^3 + (2*I)*E^((3*I)*a)*ArcTan[x/E^(I*a)]
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 327

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(n
 - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*(m + n*p + 1))), x] - Dist[
a*c^n*((m - n + 1)/(b*(m + n*p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^p, x],
```

```
x] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && GtQ[m, n - 1] && NeQ[m + n*p
 + 1, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)x^2}{1+\frac{e^{2ia}}{x^2}}\,dx\\
&= \int \frac{x^2(-ie^{2ia}+ix^2)}{e^{2ia}+x^2}\,dx\\
&= \frac{ix^3}{3}-\left(2ie^{2ia}\right)\int \frac{x^2}{e^{2ia}+x^2}\,dx\\
&= -2ie^{2ia}x+\frac{ix^3}{3}+\left(2ie^{4ia}\right)\int \frac{1}{e^{2ia}+x^2}\,dx\\
&= -2ie^{2ia}x+\frac{ix^3}{3}+2ie^{3ia}\arctan\left(e^{-ia}x\right)
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.03 (sec) , antiderivative size = 66, normalized size of antiderivative = 1.53

$$\int x^2 \tan(a+i\log(x))\,dx = \frac{ix^3}{3} - 2ix\cos(2a) + 2i\arctan(x\cos(a) - ix\sin(a))\cos(3a) + 2x\sin(2a) - 2\arctan(x\cos(a) - ix\sin(a))\sin(3a)$$

```
[In] Integrate[x^2*Tan[a + I*Log[x]],x]
[Out] (I/3)*x^3 - (2*I)*x*Cos[2*a] + (2*I)*ArcTan[x*Cos[a] - I*x*Sin[a]]*Cos[3*a]
 + 2*x*Sin[2*a] - 2*ArcTan[x*Cos[a] - I*x*Sin[a]]*Sin[3*a]
```

Maple [A] (verified)

Time = 3.04 (sec) , antiderivative size = 33, normalized size of antiderivative = 0.77

method	result	size
risch	$\frac{ix^3}{3} - 2i\mathrm{e}^{2ia}x + 2i\arctan\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{3ia}$	33

```
[In] int(x^2*tan(a+I*ln(x)),x,method=_RETURNVERBOSE)
[Out] 1/3*I*x^3-2*I*exp(2*I*a)*x+2*I*arctan(x*exp(-I*a))*exp(3*I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.98

$$\int x^2 \tan(a+i\log(x))\,dx = \frac{1}{3}i\,x^3 - 2i\,xe^{(2i\,a)} - e^{(3i\,a)}\log\left(x + i\,e^{(i\,a)}\right) + e^{(3i\,a)}\log\left(x - i\,e^{(i\,a)}\right)$$

```
[In] integrate(x^2*tan(a+I*log(x)),x, algorithm="fricas")
[Out] 1/3*I*x^3 - 2*I*x*e^(2*I*a) - e^(3*I*a)*log(x + I*e^(I*a)) + e^(3*I*a)*log(
x - I*e^(I*a))
```

Sympy [A] (verification not implemented)

Time = 0.11 (sec) , antiderivative size = 61, normalized size of antiderivative = 1.42

$$\int x^2 \tan(a + i\log(x))\,dx = \frac{ix^3}{3} - 2ixe^{2ia} + \left(\log\left(xe^{2ia} - ie^{3ia}\right) - \log\left(xe^{2ia} + ie^{3ia}\right)\right)e^{3ia}$$

```
[In] integrate(x**2*tan(a+I*ln(x)),x)
```

```
[Out] I*x**3/3 - 2*I*x*exp(2*I*a) + (log(x*exp(2*I*a) - I*exp(3*I*a)) - log(x*exp
(2*I*a) + I*exp(3*I*a)))*exp(3*I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 149 vs. 2(26) = 52.

Time = 0.30 (sec) , antiderivative size = 149, normalized size of antiderivative = 3.47

$$\begin{aligned}\int x^2 \tan(a + i\log(x))\,dx &= \frac{1}{3} i\,x^3 - 2\,x(i\,\cos(2\,a) - \sin(2\,a)) \\ &\quad - (i\,\cos(3\,a) - \sin(3\,a))\arctan\left(\frac{2\,x\cos(a)}{x^2 + \cos(a)^2 - 2\,x\sin(a) + \sin(a)^2}, \frac{x^2 - \cos(a)^2 - \sin(a)^2}{x^2 + \cos(a)^2 - 2\,x\sin(a) + \sin(a)^2}\right) \\ &\quad + \frac{1}{2}(\cos(3\,a) + i\,\sin(3\,a))\log\left(\frac{x^2 + \cos(a)^2 + 2\,x\sin(a) + \sin(a)^2}{x^2 + \cos(a)^2 - 2\,x\sin(a) + \sin(a)^2}\right)\end{aligned}$$

```
[In] integrate(x^2*tan(a+I*log(x)),x, algorithm="maxima")
```

```
[Out] 1/3*I*x^3 - 2*x*(I*cos(2*a) - sin(2*a)) - (I*cos(3*a) - sin(3*a))*arctan2(2
*x*cos(a)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a
)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + 1/2*(cos(3*a) + I*sin(3*a)
)*log((x^2 + cos(a)^2 + 2*x*sin(a) + sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a)
 + sin(a)^2))
```

Giac [A] (verification not implemented)

none

Time = 0.34 (sec) , antiderivative size = 26, normalized size of antiderivative = 0.60

$$\int x^2 \tan(a + i\log(x))\,dx = \frac{1}{3} i\,x^3 + 2i\,\arctan\left(xe^{(-i\,a)}\right)e^{(3i\,a)} - 2i\,xe^{(2i\,a)}$$

```
[In] integrate(x^2*tan(a+I*log(x)),x, algorithm="giac")
```

```
[Out] 1/3*I*x^3 + 2*I*arctan(x*e^(-I*a))*e^(3*I*a) - 2*I*x*e^(2*I*a)
```

Mupad [B] (verification not implemented)

Time = 26.15 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.84

$$\int x^2 \tan(a + i \log(x)) \, dx = \left(\mathrm{e}^{a\,2\mathrm{i}}\right)^{3/2} \operatorname{atan}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right) 2\mathrm{i} + \frac{x^3\,1\mathrm{i}}{3} - x\,\mathrm{e}^{a\,2\mathrm{i}}\,2\mathrm{i}$$

```
[In] int(x^2*tan(a + log(x)*1i),x)
[Out] exp(a*2i)^(3/2)*atan(x/exp(a*2i)^(1/2))*2i + (x^3*1i)/3 - x*exp(a*2i)*2i
```

3.137 $\int x \tan(a + i \log(x)) \, dx$

Optimal result 1861
Rubi [A] (verified) 1861
Mathematica [B] (verified) 1862
Maple [A] (verified) 1863
Fricas [A] (verification not implemented) 1863
Sympy [A] (verification not implemented) 1863
Maxima [B] (verification not implemented) 1864
Giac [A] (verification not implemented) 1864
Mupad [B] (verification not implemented) 1864

Optimal result

Integrand size = 11, antiderivative size = 33

$$\int x \tan(a + i \log(x)) \, dx = \frac{ix^2}{2} - ie^{2ia} \log\left(e^{2ia} + x^2\right)$$

```
[Out] 1/2*I*x^2-I*exp(2*I*a)*ln(exp(2*I*a)+x^2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 33, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.364, Rules used = {4591, 456, 455, 45}

$$\int x \tan(a + i \log(x)) \, dx = \frac{ix^2}{2} - ie^{2ia} \log\left(x^2 + e^{2ia}\right)$$

```
[In] Int[x*Tan[a + I*Log[x]],x]
```

```
[Out] (I/2)*x^2 - I*E^((2*I)*a)*Log[E^((2*I)*a) + x^2]
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
```

```
1, 0]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)x}{1+\frac{e^{2ia}}{x^2}}\,dx \\
&= \int \frac{x\left(-ie^{2ia}+ix^2\right)}{e^{2ia}+x^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{-ie^{2ia}+ix}{e^{2ia}+x}\,dx,x,x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(i-\frac{2ie^{2ia}}{e^{2ia}+x}\right)\,dx,x,x^2\right) \\
&= \frac{ix^2}{2}-ie^{2ia}\log\left(e^{2ia}+x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 114 vs. $2(33) = 66$.

Time = 0.02 (sec) , antiderivative size = 114, normalized size of antiderivative = 3.45

$$\begin{aligned}
\int x\tan(a+i\log(x))\,dx = {} & \frac{ix^2}{2}-\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\cos(2a) \\
& -\frac{1}{2}i\cos(2a)\log\left(1+x^4+2x^2\cos(2a)\right) \\
& -i\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\sin(2a) \\
& +\frac{1}{2}\log\left(1+x^4+2x^2\cos(2a)\right)\sin(2a)
\end{aligned}$$

```
[In] Integrate[x*Tan[a + I*Log[x]],x]
```

```
[Out] (I/2)*x^2 - ArcTan[((1 + x^2)*Cos[a])/(Sin[a] - x^2*Sin[a])]*Cos[2*a] - (I/
2)*Cos[2*a]*Log[1 + x^4 + 2*x^2*Cos[2*a]] - I*ArcTan[((1 + x^2)*Cos[a])/(Si
n[a] - x^2*Sin[a])]*Sin[2*a] + (Log[1 + x^4 + 2*x^2*Cos[2*a]]*Sin[2*a])/2
```

Maple [A] (verified)

Time = 2.10 (sec) , antiderivative size = 26, normalized size of antiderivative = 0.79

method	result	size
risch	$\frac{i x^{2}}{2}-i {\mathrm e}^{2 i a} \ln \left({\mathrm e}^{2 i a}+x^{2}\right)$	26

```
[In] int(x*tan(a+I*ln(x)),x,method=_RETURNVERBOSE)
```

```
[Out] 1/2*I*x^2-I*exp(2*I*a)*ln(exp(2*I*a)+x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 21, normalized size of antiderivative = 0.64

$$\int x \tan(a + i \log(x)) \, dx = \frac{1}{2} i \, x^{2} - i \, e^{\left(2 i \, a\right)} \log\left(x^{2} + e^{\left(2 i \, a\right)}\right)$$

```
[In] integrate(x*tan(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] 1/2*I*x^2 - I*e^(2*I*a)*log(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.10 (sec) , antiderivative size = 26, normalized size of antiderivative = 0.79

$$\int x \tan(a + i \log(x)) \, dx = \frac{i x^{2}}{2} - i e^{2 i a} \log\left(x^{2} + e^{2 i a}\right)$$

```
[In] integrate(x*tan(a+I*ln(x)),x)
```

```
[Out] I*x**2/2 - I*exp(2*I*a)*log(x**2 + exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 70 vs. 2(21) = 42.

Time = 0.19 (sec) , antiderivative size = 70, normalized size of antiderivative = 2.12

$$\int x\tan(a+i\log(x))\,dx = \frac{1}{2}i\,x^2 + (\cos(2\,a) + i\,\sin(2\,a))\arctan\left(\sin(2\,a), x^2 + \cos(2\,a)\right) + \frac{1}{2}\left(-i\,\cos(2\,a) + \sin(2\,a)\right)\log\left(x^4 + 2\,x^2\cos(2\,a) + \cos(2\,a)^2 + \sin(2\,a)^2\right)$$

```
[In] integrate(x*tan(a+I*log(x)),x, algorithm="maxima")
```

```
[Out] 1/2*I*x^2 + (cos(2*a) + I*sin(2*a))*arctan2(sin(2*a), x^2 + cos(2*a)) + 1/2
*(-I*cos(2*a) + sin(2*a))*log(x^4 + 2*x^2*cos(2*a) + cos(2*a)^2 + sin(2*a)^
2)
```

Giac [A] (verification not implemented)

none

Time = 0.34 (sec) , antiderivative size = 28, normalized size of antiderivative = 0.85

$$\int x\tan(a+i\log(x))\,dx = \frac{1}{2}i\,x^2 - \frac{1}{2}\,\pi e^{(2i\,a)} - i\,e^{(2i\,a)}\log\left(x^2 + e^{(2i\,a)}\right)$$

```
[In] integrate(x*tan(a+I*log(x)),x, algorithm="giac")
```

```
[Out] 1/2*I*x^2 - 1/2*pi*e^(2*I*a) - I*e^(2*I*a)*log(x^2 + e^(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 26.23 (sec) , antiderivative size = 25, normalized size of antiderivative = 0.76

$$\int x\tan(a+i\log(x))\,dx = -\mathrm{e}^{a\,2\mathrm{i}}\,\ln\left(x^2 + \mathrm{e}^{a\,2\mathrm{i}}\right)\,1\mathrm{i} + \frac{x^2\,1\mathrm{i}}{2}$$

```
[In] int(x*tan(a + log(x)*1i),x)
```

```
[Out] (x^2*1i)/2 - exp(a*2i)*log(exp(a*2i) + x^2)*1i
```

3.138 $\int \tan(a + i\log(x))\,dx$

Optimal result 1865
Rubi [A] (verified) 1865
Mathematica [A] (verified) 1866
Maple [A] (verified) 1867
Fricas [A] (verification not implemented) 1867
Sympy [A] (verification not implemented) 1867
Maxima [B] (verification not implemented) 1867
Giac [A] (verification not implemented) 1868
Mupad [B] (verification not implemented) 1868

Optimal result

Integrand size = 9, antiderivative size = 27

$$\int \tan(a + i\log(x))\,dx = ix - 2ie^{ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] I*x-2*I*exp(I*a)*arctan(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 27, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4587, 381, 396, 209}

$$\int \tan(a + i\log(x))\,dx = ix - 2ie^{ia}\arctan\left(e^{-ia}x\right)$$

```
[In] Int[Tan[a + I*Log[x]],x]
```

```
[Out] I*x - (2*I)*E^(I*a)*ArcTan[x/E^(I*a)]
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 381

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.), x_Symbol
] :> Int[x^(n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; FreeQ[{a, b, c, d
, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[n]
```

Rule 396

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)), x_Symbol] :> Si
mp[d*x*((a + b*x^n)^(p + 1)/(b*(n*(p + 1) + 1))), x] - Dist[(a*d - b*c*(n*(
p + 1) + 1))/(b*(n*(p + 1) + 1)), Int[(a + b*x^n)^p, x], x] /; FreeQ[{a, b,
 c, d, n}, x] && NeQ[b*c - a*d, 0] && NeQ[n*(p + 1) + 1, 0]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \int \frac{i-\frac{ie^{2ia}}{x^2}}{1+\frac{e^{2ia}}{x^2}}\,dx\\ &= \int \frac{-ie^{2ia}+ix^2}{e^{2ia}+x^2}\,dx\\ &= ix-\left(2ie^{2ia}\right)\int \frac{1}{e^{2ia}+x^2}\,dx\\ &= ix-2ie^{ia}\arctan\left(e^{-ia}x\right)\end{aligned}$$

Mathematica [A] (verified)

Time = 0.01 (sec) , antiderivative size = 42, normalized size of antiderivative = 1.56

$$\int \tan(a+i\log(x))\,dx = ix-2i\arctan(x\cos(a)-ix\sin(a))\cos(a) + 2\arctan(x\cos(a)-ix\sin(a))\sin(a)$$

```
[In] Integrate[Tan[a + I*Log[x]],x]
```

```
[Out] I*x - (2*I)*ArcTan[x*Cos[a] - I*x*Sin[a]]*Cos[a] + 2*ArcTan[x*Cos[a] - I*x*
Sin[a]]*Sin[a]
```

Maple [A] (verified)

Time = 1.56 (sec) , antiderivative size = 22, normalized size of antiderivative = 0.81

method	result	size
risch	$ix-2i\arctan\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{ia}$	22

```
[In] int(tan(a+I*ln(x)),x,method=_RETURNVERBOSE)
[Out] I*x-2*I*arctan(x*exp(-I*a))*exp(I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 33, normalized size of antiderivative = 1.22

$$\int \tan(a+i\log(x))\,dx = e^{(i\,a)}\log\left(x+i\,e^{(i\,a)}\right)-e^{(i\,a)}\log\left(x-i\,e^{(i\,a)}\right)+i\,x$$

```
[In] integrate(tan(a+I*log(x)),x, algorithm="fricas")
[Out] e^(I*a)*log(x + I*e^(I*a)) - e^(I*a)*log(x - I*e^(I*a)) + I*x
```

Sympy [A] (verification not implemented)

Time = 0.10 (sec) , antiderivative size = 27, normalized size of antiderivative = 1.00

$$\int \tan(a+i\log(x))\,dx = ix+\left(-\log\left(x-ie^{ia}\right)+\log\left(x+ie^{ia}\right)\right)e^{ia}$$

```
[In] integrate(tan(a+I*ln(x)),x)
[Out] I*x + (-log(x - I*exp(I*a)) + log(x + I*exp(I*a)))*exp(I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 122 vs. 2(17) = 34.

Time = 0.30 (sec) , antiderivative size = 122, normalized size of antiderivative = 4.52

$$\int \tan(a+i\log(x))\,dx$$
$$=(i\,\cos(a)-\sin(a))\arctan\left(\frac{2\,x\cos(a)}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2},\frac{x^2-\cos(a)^2-\sin(a)^2}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2}\right)$$
$$-\frac{1}{2}(\cos(a)+i\,\sin(a))\log\left(\frac{x^2+\cos(a)^2+2\,x\sin(a)+\sin(a)^2}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2}\right)+i\,x$$

```
[In] integrate(tan(a+I*log(x)),x, algorithm="maxima")
```

```
[Out] (I*cos(a) - sin(a))*arctan2(2*x*cos(a)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a
)^2), (x^2 - cos(a)^2 - sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2))
 - 1/2*(cos(a) + I*sin(a))*log((x^2 + cos(a)^2 + 2*x*sin(a) + sin(a)^2)/(x^
2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + I*x
```

Giac [A] (verification not implemented)

none

Time = 0.32 (sec) , antiderivative size = 17, normalized size of antiderivative = 0.63

$$\int \tan(a+i\log(x))\,dx = -2i\arctan\left(xe^{(-i\,a)}\right)e^{(i\,a)} + i\,x$$

```
[In] integrate(tan(a+I*log(x)),x, algorithm="giac")
```

```
[Out] -2*I*arctan(x*e^(-I*a))*e^(I*a) + I*x
```

Mupad [B] (verification not implemented)

Time = 27.55 (sec) , antiderivative size = 25, normalized size of antiderivative = 0.93

$$\int \tan(a+i\log(x))\,dx = x\,1\mathrm{i} - \sqrt{\mathrm{e}^{a\,2\mathrm{i}}}\,\mathrm{atan}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)\,2\mathrm{i}$$

```
[In] int(tan(a + log(x)*1i),x)
```

```
[Out] x*1i - exp(a*2i)^(1/2)*atan(x/exp(a*2i)^(1/2))*2i
```

3.139 $\int \frac{\tan(a+i\log(x))}{x}\,dx$

Optimal result 1869
Rubi [A] (verified) 1869
Mathematica [A] (verified) 1870
Maple [A] (verified) 1870
Fricas [A] (verification not implemented) 1870
Sympy [A] (verification not implemented) 1871
Maxima [A] (verification not implemented) 1871
Giac [B] (verification not implemented) 1871
Mupad [B] (verification not implemented) 1872

Optimal result

Integrand size = 13, antiderivative size = 14

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = i\log(\cos(a+i\log(x)))$$

```
[Out] I*ln(cos(a+I*ln(x)))
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 14, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}} = 0.077$, Rules used = {3556}

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = i\log(\cos(a+i\log(x)))$$

```
[In] Int[Tan[a + I*Log[x]]/x,x]
```

```
[Out] I*Log[Cos[a + I*Log[x]]]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \text{Subst}\left(\int \tan(a+ix)\,dx, x, \log(x)\right) \\ &= i\log(\cos(a+i\log(x))) \end{aligned}$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 14, normalized size of antiderivative = 1.00

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = i\log(\cos(a+i\log(x)))$$

```
[In] Integrate[Tan[a + I*Log[x]]/x,x]
[Out] I*Log[Cos[a + I*Log[x]]]
```

Maple [A] (verified)

Time = 0.65 (sec) , antiderivative size = 17, normalized size of antiderivative = 1.21

method	result	size
derivativedivides	$-\frac{i\ln\left(1+\tan(a+i\ln(x))^2\right)}{2}$	17
default	$-\frac{i\ln\left(1+\tan(a+i\ln(x))^2\right)}{2}$	17
norman	$-\frac{i\ln\left(1+\tan(a+i\ln(x))^2\right)}{2}$	17
parallelrisch	$-\frac{i\ln\left(1+\tan(a+i\ln(x))^2\right)}{2}$	17
risch	$i\ln(x)+2a+i\ln\left(1+\frac{e^{2ia}}{x^2}\right)$	25

```
[In] int(tan(a+I*ln(x))/x,x,method=_RETURNVERBOSE)
[Out] -1/2*I*ln(1+tan(a+I*ln(x))^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 16, normalized size of antiderivative = 1.14

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = i\,\log\left(x^2+e^{(2ia)}\right) - i\,\log(x)$$

```
[In] integrate(tan(a+I*log(x))/x,x, algorithm="fricas")
[Out] I*log(x^2 + e^(2*I*a)) - I*log(x)
```

Sympy [A] (verification not implemented)

Time = 0.14 (sec) , antiderivative size = 17, normalized size of antiderivative = 1.21

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = -i\log{(x)} + i\log{\left(x^2 + e^{2ia}\right)}$$

```
[In] integrate(tan(a+I*ln(x))/x,x)
[Out] -I*log(x) + I*log(x**2 + exp(2*I*a))
```

Maxima [A] (verification not implemented)

none

Time = 0.19 (sec) , antiderivative size = 10, normalized size of antiderivative = 0.71

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = -i\,\log\left(\sec\left(a+i\,\log\left(x\right)\right)\right)$$

```
[In] integrate(tan(a+I*log(x))/x,x, algorithm="maxima")
[Out] -I*log(sec(a + I*log(x)))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 73 vs. 2(10) = 20.

Time = 0.34 (sec) , antiderivative size = 73, normalized size of antiderivative = 5.21

$$\int \frac{\tan(a+i\log(x))}{x}\,dx = i\,\log\left(\sqrt{-\frac{1}{8}\left(\frac{\left(|x|^2+1\right)^2}{|x|^2} - \frac{\left(|x|^2-1\right)^2}{|x|^2}\right)\cos\left(\pi\mathrm{sgn}\left(x\right)+2\,a\right) + \frac{\left(|x|^2+1\right)^2}{8\,|x|^2} + \frac{\left(|x|^2-1\right)^2}{8\,|x|^2}}\right)$$

```
[In] integrate(tan(a+I*log(x))/x,x, algorithm="giac")
[Out] I*log(sqrt(-1/8*((abs(x)^2 + 1)^2/abs(x)^2 - (abs(x)^2 - 1)^2/abs(x)^2)*cos
(pi*sgn(x) + 2*a) + 1/8*(abs(x)^2 + 1)^2/abs(x)^2 + 1/8*(abs(x)^2 - 1)^2/ab
s(x)^2))
```

Mupad [B] (verification not implemented)

Time = 29.97 (sec) , antiderivative size = 16, normalized size of antiderivative = 1.14

$$\int \frac{\tan(a + i\log(x))}{x}\,dx = -\frac{\ln\left(\tan(a + \ln(x)\ 1\mathrm{i})^2 + 1\right)\ 1\mathrm{i}}{2}$$

```
[In] int(tan(a + log(x)*1i)/x,x)
[Out] -(log(tan(a + log(x)*1i)^2 + 1)*1i)/2
```

3.140 $\int \frac{\tan(a+i\log(x))}{x^2}\,dx$

Optimal result 1873
Rubi [A] (verified) 1873
Mathematica [A] (verified) 1874
Maple [A] (verified) 1875
Fricas [B] (verification not implemented) 1875
Sympy [A] (verification not implemented) 1875
Maxima [B] (verification not implemented) 1875
Giac [A] (verification not implemented) 1876
Mupad [B] (verification not implemented) 1876

Optimal result

Integrand size = 13, antiderivative size = 29

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = \frac{i}{x} + 2ie^{-ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] I/x+2*I*arctan(x/exp(I*a))/exp(I*a)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.308$, Rules used = {4591, 456, 464, 209}

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = 2ie^{-ia}\arctan\left(e^{-ia}x\right) + \frac{i}{x}$$

```
[In] Int[Tan[a + I*Log[x]]/x^2,x]
```

```
[Out] I/x + ((2*I)*ArcTan[x/E^(I*a)])/E^(I*a)
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
```

```
n]
```

Rule 464

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[c*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))),
 x] + Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(a*e^n*(m + 1)), Int[(e*
x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, p}, x] && NeQ[b*c
 - a*d, 0] && (IntegerQ[n] || GtQ[e, 0]) && ((GtQ[n, 0] && LtQ[m, -1]) || (
LtQ[n, 0] && GtQ[m + n, -1])) &&  !ILtQ[p, -1]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \int \frac{i-\frac{ie^{2ia}}{x^2}}{\left(1+\frac{e^{2ia}}{x^2}\right)x^2}\,dx\\ &= \int \frac{-ie^{2ia}+ix^2}{x^2\left(e^{2ia}+x^2\right)}\,dx\\ &= \frac{i}{x}+2i\int \frac{1}{e^{2ia}+x^2}\,dx\\ &= \frac{i}{x}+2ie^{-ia}\arctan\left(e^{-ia}x\right)\end{aligned}$$

Mathematica [A] (verified)

Time = 0.03 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.52

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = \frac{i}{x}+2i\arctan(x\cos(a)-ix\sin(a))\cos(a)\\ +2\arctan(x\cos(a)-ix\sin(a))\sin(a)$$

```
[In] Integrate[Tan[a + I*Log[x]]/x^2,x]
```

```
[Out] I/x + (2*I)*ArcTan[x*Cos[a] - I*x*Sin[a]]*Cos[a] + 2*ArcTan[x*Cos[a] - I*x*
Sin[a]]*Sin[a]
```

Maple [A] (verified)

Time = 1.68 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.83

method	result	size
risch	$\frac{i}{x}+2i\arctan\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{-ia}$	24

```
[In] int(tan(a+I*ln(x))/x^2,x,method=_RETURNVERBOSE)
[Out] I/x+2*I*arctan(x*exp(-I*a))*exp(-I*a)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 39 vs. 2(19) = 38.

Time = 0.25 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.34

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = -\frac{\left(x\log\left(x+i\,e^{(i\,a)}\right)-x\log\left(x-i\,e^{(i\,a)}\right)-i\,e^{(i\,a)}\right)e^{(-i\,a)}}{x}$$

```
[In] integrate(tan(a+I*log(x))/x^2,x, algorithm="fricas")
[Out] -(x*log(x + I*e^(I*a)) - x*log(x - I*e^(I*a)) - I*e^(I*a))*e^(-I*a)/x
```

Sympy [A] (verification not implemented)

Time = 0.12 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.93

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = \left(\log\left(x-ie^{ia}\right)-\log\left(x+ie^{ia}\right)\right)e^{-ia}+\frac{i}{x}$$

```
[In] integrate(tan(a+I*ln(x))/x**2,x)
[Out] (log(x - I*exp(I*a)) - log(x + I*exp(I*a)))*exp(-I*a) + I/x
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 127 vs. 2(19) = 38.

Time = 0.30 (sec) , antiderivative size = 127, normalized size of antiderivative = 4.38

$$\int \frac{\tan(a+i\log(x))}{x^2}\,dx = \frac{2\,x(-i\,\cos(a)-\sin(a))\arctan\left(\frac{2\,x\cos(a)}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2},\frac{x^2-\cos(a)^2-\sin(a)^2}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2}\right)+x(\cos(a)-i\,\sin(a)}{2\,x}$$

```
[In] integrate(tan(a+I*log(x))/x^2,x, algorithm="maxima")
```

```
[Out] 1/2*(2*x*(-I*cos(a) - sin(a))*arctan2(2*x*cos(a)/(x^2 + cos(a)^2 - 2*x*sin(
a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) +
sin(a)^2)) + x*(cos(a) - I*sin(a))*log((x^2 + cos(a)^2 + 2*x*sin(a) + sin(a
)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + 2*I)/x
```

Giac [A] (verification not implemented)

none

Time = 0.36 (sec) , antiderivative size = 19, normalized size of antiderivative = 0.66

$$\int \frac{\tan(a + i\log(x))}{x^2}\,dx = 2i\ \arctan\left(xe^{(-i\,a)}\right)e^{(-i\,a)} + \frac{i}{x}$$

```
[In] integrate(tan(a+I*log(x))/x^2,x, algorithm="giac")
```

```
[Out] 2*I*arctan(x*e^(-I*a))*e^(-I*a) + I/x
```

Mupad [B] (verification not implemented)

Time = 27.70 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.93

$$\int \frac{\tan(a + i\log(x))}{x^2}\,dx = \frac{\mathrm{atan}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)\,2\mathrm{i}}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}} + \frac{1\mathrm{i}}{x}$$

```
[In] int(tan(a + log(x)*1i)/x^2,x)
```

```
[Out] (atan(x/exp(a*2i)^(1/2))*2i)/exp(a*2i)^(1/2) + 1i/x
```

3.141 $\int \frac{\tan(a+i\log(x))}{x^3} dx$

Optimal result 1877
Rubi [A] (verified) 1877
Mathematica [B] (verified) 1878
Maple [A] (verified) 1879
Fricas [A] (verification not implemented) 1879
Sympy [A] (verification not implemented) 1879
Maxima [B] (verification not implemented) 1879
Giac [A] (verification not implemented) 1880
Mupad [B] (verification not implemented) 1880

Optimal result

Integrand size = 13, antiderivative size = 35

$$\int \frac{\tan(a+i\log(x))}{x^3} dx = \frac{i}{2x^2} - ie^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right)$$

```
[Out] 1/2*I/x^2-I*ln(1+exp(2*I*a)/x^2)/exp(2*I*a)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.231$, Rules used = {4591, 455, 45}

$$\int \frac{\tan(a+i\log(x))}{x^3} dx = \frac{i}{2x^2} - ie^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right)$$

```
[In] Int[Tan[a + I*Log[x]]/x^3,x]
```

```
[Out] (I/2)/x^2 - (I*Log[1 + E^((2*I)*a)/x^2])/E^((2*I)*a)
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{i-\frac{ie^{2ia}}{x^2}}{\left(1+\frac{e^{2ia}}{x^2}\right)x^3}\,dx\\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \frac{i-ie^{2ia}x}{1+e^{2ia}x}\,dx,x,\frac{1}{x^2}\right)\right)\\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \left(-i+\frac{2i}{1+e^{2ia}x}\right)\,dx,x,\frac{1}{x^2}\right)\right)\\
&= \frac{i}{2x^2}-ie^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 132 vs. 2(35) = 70.

Time = 0.04 (sec) , antiderivative size = 132, normalized size of antiderivative = 3.77

$$\begin{aligned}
\int \frac{\tan(a+i\log(x))}{x^3}\,dx &= \frac{i}{2x^2}-\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\cos(2a)\\
&\quad+2i\cos(2a)\log(x)-\frac{1}{2}i\cos(2a)\log\left(1+x^4+2x^2\cos(2a)\right)\\
&\quad+i\arctan\left(\frac{(1+x^2)\cos(a)}{\sin(a)-x^2\sin(a)}\right)\sin(2a)\\
&\quad+2\log(x)\sin(2a)-\frac{1}{2}\log\left(1+x^4+2x^2\cos(2a)\right)\sin(2a)
\end{aligned}$$

```
[In] Integrate[Tan[a + I*Log[x]]/x^3,x]
```

```
[Out] (I/2)/x^2 - ArcTan[((1 + x^2)*Cos[a])/(Sin[a] - x^2*Sin[a])]*Cos[2*a] + (2*
I)*Cos[2*a]*Log[x] - (I/2)*Cos[2*a]*Log[1 + x^4 + 2*x^2*Cos[2*a]] + I*ArcTa
n[((1 + x^2)*Cos[a])/(Sin[a] - x^2*Sin[a])]*Sin[2*a] + 2*Log[x]*Sin[2*a] -
(Log[1 + x^4 + 2*x^2*Cos[2*a]]*Sin[2*a])/2
```

Maple [A] (verified)

Time = 2.54 (sec) , antiderivative size = 36, normalized size of antiderivative = 1.03

method	result	size
risch	$\frac{i}{2x^2} - i\mathrm{e}^{-2ia}\ln\left(\mathrm{e}^{2ia}+x^2\right)+2i\mathrm{e}^{-2ia}\ln\left(x\right)$	36

```
[In] int(tan(a+I*ln(x))/x^3,x,method=_RETURNVERBOSE)
[Out] 1/2*I/x^2-I*exp(-2*I*a)*ln(exp(2*I*a)+x^2)+2*I*exp(-2*I*a)*ln(x)
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 37, normalized size of antiderivative = 1.06

$$\int \frac{\tan(a+i\log(x))}{x^3}\,dx = \frac{\left(-2i\,x^2\log\left(x^2+e^{(2i\,a)}\right)+4i\,x^2\log\left(x\right)+i\,e^{(2i\,a)}\right)e^{(-2i\,a)}}{2\,x^2}$$

```
[In] integrate(tan(a+I*log(x))/x^3,x, algorithm="fricas")
[Out] 1/2*(-2*I*x^2*log(x^2 + e^(2*I*a)) + 4*I*x^2*log(x) + I*e^(2*I*a))*e^(-2*I*
a)/x^2
```

Sympy [A] (verification not implemented)

Time = 0.19 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.11

$$\int \frac{\tan(a+i\log(x))}{x^3}\,dx = 2ie^{-2ia}\log\left(x\right)-ie^{-2ia}\log\left(x^2+e^{2ia}\right)+\frac{i}{2x^2}$$

```
[In] integrate(tan(a+I*ln(x))/x**3,x)
[Out] 2*I*exp(-2*I*a)*log(x) - I*exp(-2*I*a)*log(x**2 + exp(2*I*a)) + I/(2*x**2)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 94 vs. 2(23) = 46.

Time = 0.21 (sec) , antiderivative size = 94, normalized size of antiderivative = 2.69

$$\int \frac{\tan(a+i\log(x))}{x^3}\,dx =$$

$$-\frac{x^2(i\,\cos\left(2\,a\right)+\sin\left(2\,a\right))\log\left(x^4+2\,x^2\cos\left(2\,a\right)+\cos\left(2\,a\right)^2+\sin\left(2\,a\right)^2\right)-2\left(\left(\cos\left(2\,a\right)-i\,\sin\left(2\,a\right)\right)\text{ar}\right.}{2\,x^2}$$

```
[In] integrate(tan(a+I*log(x))/x^3,x, algorithm="maxima")
```

```
[Out] -1/2*(x^2*(I*cos(2*a) + sin(2*a))*log(x^4 + 2*x^2*cos(2*a) + cos(2*a)^2 + s
in(2*a)^2) - 2*((cos(2*a) - I*sin(2*a))*arctan2(sin(2*a), x^2 + cos(2*a)) +
 2*(I*cos(2*a) + sin(2*a))*log(x))*x^2 - I)/x^2
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 36, normalized size of antiderivative = 1.03

$$\int \frac{\tan(a+i\log(x))}{x^3}\,dx = -\frac{1}{2}\,\pi e^{(-2i\,a)} - i\,e^{(-2i\,a)}\log\left(x^2+e^{(2i\,a)}\right) + 2i\,e^{(-2i\,a)}\log\left(x\right) + \frac{i}{2\,x^2}$$

```
[In] integrate(tan(a+I*log(x))/x^3,x, algorithm="giac")
```

```
[Out] -1/2*pi*e^(-2*I*a) - I*e^(-2*I*a)*log(x^2 + e^(2*I*a)) + 2*I*e^(-2*I*a)*log
(x) + 1/2*I/x^2
```

Mupad [B] (verification not implemented)

Time = 27.79 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.00

$$\int \frac{\tan(a+i\log(x))}{x^3}\,dx = -\mathrm{e}^{-a\,2\mathrm{i}}\,\ln\left(x^2+\mathrm{e}^{a\,2\mathrm{i}}\right)\,1\mathrm{i} + \mathrm{e}^{-a\,2\mathrm{i}}\,\ln\left(x\right)\,2\mathrm{i} + \frac{1\mathrm{i}}{2\,x^2}$$

```
[In] int(tan(a + log(x)*1i)/x^3,x)
```

```
[Out] exp(-a*2i)*log(x)*2i - exp(-a*2i)*log(exp(a*2i) + x^2)*1i + 1i/(2*x^2)
```

3.142 $\int \frac{\tan(a+i\log(x))}{x^4}\,dx$

Optimal result 1881
Rubi [A] (verified) 1881
Mathematica [A] (verified) 1883
Maple [A] (verified) 1883
Fricas [A] (verification not implemented) 1883
Sympy [A] (verification not implemented) 1884
Maxima [B] (verification not implemented) 1884
Giac [A] (verification not implemented) 1884
Mupad [B] (verification not implemented) 1885

Optimal result

Integrand size = 13, antiderivative size = 45

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = \frac{i}{3x^3} - \frac{2ie^{-2ia}}{x} - 2ie^{-3ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] 1/3*I/x^3-2*I/exp(2*I*a)/x-2*I*arctan(x/exp(I*a))/exp(3*I*a)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 45, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.385$, Rules used = {4591, 456, 464, 331, 209}

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = -2ie^{-3ia}\arctan\left(e^{-ia}x\right) - \frac{2ie^{-2ia}}{x} + \frac{i}{3x^3}$$

```
[In] Int[Tan[a + I*Log[x]]/x^4,x]
[Out] (I/3)/x^3 - (2*I)/(E^((2*I)*a)*x) - ((2*I)*ArcTan[x/E^(I*a)])/E^((3*I)*a)
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 331

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*x
)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] - Dist[b*((m + n*(p + 1)
+ 1)/(a*c^n*(m + 1))), Int[(c*x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a,
```

```
b, c, p}, x] && IGtQ[n, 0] && LtQ[m, -1] && IntBinomialQ[a, b, c, n, m, p,
x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 464

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[c*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))),
 x] + Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(a*e^n*(m + 1)), Int[(e*
x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, p}, x] && NeQ[b*c
 - a*d, 0] && (IntegerQ[n] || GtQ[e, 0]) && ((GtQ[n, 0] && LtQ[m, -1]) || (
LtQ[n, 0] && GtQ[m + n, -1])) &&  !ILtQ[p, -1]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{i-\frac{ie^{2ia}}{x^2}}{\left(1+\frac{e^{2ia}}{x^2}\right)x^4}\,dx \\
&= \int \frac{-ie^{2ia}+ix^2}{x^4\left(e^{2ia}+x^2\right)}\,dx \\
&= \frac{i}{3x^3}+2i\int \frac{1}{x^2\left(e^{2ia}+x^2\right)}\,dx \\
&= \frac{i}{3x^3}-\frac{2ie^{-2ia}}{x}-\left(2ie^{-2ia}\right)\int \frac{1}{e^{2ia}+x^2}\,dx \\
&= \frac{i}{3x^3}-\frac{2ie^{-2ia}}{x}-2ie^{-3ia}\arctan\left(e^{-ia}x\right)
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.03 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.56

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = \frac{i}{3x^3} - \frac{2i\cos(2a)}{x} - 2i\arctan(x\cos(a)-ix\sin(a))\cos(3a) - \frac{2\sin(2a)}{x} - 2\arctan(x\cos(a)-ix\sin(a))\sin(3a)$$

```
[In] Integrate[Tan[a + I*Log[x]]/x^4,x]
```

```
[Out] (I/3)/x^3 - ((2*I)*Cos[2*a])/x - (2*I)*ArcTan[x*Cos[a] - I*x*Sin[a]]*Cos[3*
a] - (2*Sin[2*a])/x - 2*ArcTan[x*Cos[a] - I*x*Sin[a]]*Sin[3*a]
```

Maple [A] (verified)

Time = 3.67 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.78

method	result	size
risch	$\frac{i}{3x^3} - 2i\arctan\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{-3ia} - \frac{2i\mathrm{e}^{-2ia}}{x}$	35

```
[In] int(tan(a+I*ln(x))/x^4,x,method=_RETURNVERBOSE)
```

```
[Out] 1/3*I/x^3-2*I*arctan(x*exp(-I*a))*exp(-3*I*a)-2*I*exp(-2*I*a)/x
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 53, normalized size of antiderivative = 1.18

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = \frac{\left(3\,x^3\log\left(x+i\,e^{(i\,a)}\right) - 3\,x^3\log\left(x-i\,e^{(i\,a)}\right) - 6i\,x^2e^{(i\,a)} + i\,e^{(3i\,a)}\right)e^{(-3i\,a)}}{3\,x^3}$$

```
[In] integrate(tan(a+I*log(x))/x^4,x, algorithm="fricas")
```

```
[Out] 1/3*(3*x^3*log(x + I*e^(I*a)) - 3*x^3*log(x - I*e^(I*a)) - 6*I*x^2*e^(I*a)
+ I*e^(3*I*a))*e^(-3*I*a)/x^3
```

Sympy [A] (verification not implemented)

Time = 0.15 (sec) , antiderivative size = 53, normalized size of antiderivative = 1.18

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = \left(-\log\left(x-ie^{ia}\right)+\log\left(x+ie^{ia}\right)\right)e^{-3ia}+\frac{\left(-6ix^2+ie^{2ia}\right)e^{-2ia}}{3x^3}$$

```
[In] integrate(tan(a+I*ln(x))/x**4,x)
```

```
[Out] (-log(x - I*exp(I*a)) + log(x + I*exp(I*a)))*exp(-3*I*a) + (-6*I*x**2 + I*e
xp(2*I*a))*exp(-2*I*a)/(3*x**3)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 156 vs. 2(28) = 56.

Time = 0.37 (sec) , antiderivative size = 156, normalized size of antiderivative = 3.47

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = -\frac{6\,x^3(-i\,\cos(3\,a)-\sin(3\,a))\arctan\left(\frac{2\,x\cos(a)}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2},\frac{x^2-\cos(a)^2-\sin(a)^2}{x^2+\cos(a)^2-2\,x\sin(a)+\sin(a)^2}\right)+3\,x^3(\cos(3\,a)-}{6\,x^3}$$

```
[In] integrate(tan(a+I*log(x))/x^4,x, algorithm="maxima")
```

```
[Out] -1/6*(6*x^3*(-I*cos(3*a) - sin(3*a))*arctan2(2*x*cos(a)/(x^2 + cos(a)^2 - 2
*x*sin(a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a)^2)/(x^2 + cos(a)^2 - 2*x*si
n(a) + sin(a)^2)) + 3*x^3*(cos(3*a) - I*sin(3*a))*log((x^2 + cos(a)^2 + 2*x
*sin(a) + sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + 12*x^2*(I*c
os(2*a) + sin(2*a)) - 2*I)/x^3
```

Giac [A] (verification not implemented)

none

Time = 0.35 (sec) , antiderivative size = 28, normalized size of antiderivative = 0.62

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = -2i\arctan\left(xe^{(-i\,a)}\right)e^{(-3i\,a)}-\frac{2i\,e^{(-2i\,a)}}{x}+\frac{i}{3\,x^3}$$

```
[In] integrate(tan(a+I*log(x))/x^4,x, algorithm="giac")
```

```
[Out] -2*I*arctan(x*e^(-I*a))*e^(-3*I*a) - 2*I*e^(-2*I*a)/x + 1/3*I/x^3
```

Mupad [B] (verification not implemented)

Time = 27.74 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.89

$$\int \frac{\tan(a+i\log(x))}{x^4}\,dx = -\frac{\operatorname{atan}\left(\frac{x}{\sqrt{e^{a\,2i}}}\right)\,2i}{\left(e^{a\,2i}\right)^{3/2}} - \frac{x^2\,e^{-a\,2i}\,2i-\frac{1}{3}i}{x^3}$$

```
[In] int(tan(a + log(x)*1i)/x^4,x)
[Out] - (atan(x/exp(a*2i)^(1/2))*2i)/exp(a*2i)^(3/2) - (x^2*exp(-a*2i)*2i - 1i/3)
/x^3
```

3.143 $\int x^3 \tan^2(a + i \log(x)) \, dx$

Optimal result 1886
Rubi [A] (verified) 1886
Mathematica [B] (verified) 1888
Maple [A] (verified) 1888
Fricas [A] (verification not implemented) 1889
Sympy [A] (verification not implemented) 1889
Maxima [B] (verification not implemented) 1889
Giac [B] (verification not implemented) 1890
Mupad [B] (verification not implemented) 1890

Optimal result

Integrand size = 15, antiderivative size = 63

$$\int x^3 \tan^2(a + i \log(x)) \, dx = 2e^{2ia}x^2 - \frac{x^4}{4} - \frac{2e^{6ia}}{e^{2ia} + x^2} - 4e^{4ia} \log\left(e^{2ia} + x^2\right)$$

```
[Out] 2*exp(2*I*a)*x^2-1/4*x^4-2*exp(6*I*a)/(exp(2*I*a)+x^2)-4*exp(4*I*a)*ln(exp(
2*I*a)+x^2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.267$, Rules used = {4591, 456, 457, 78}

$$\int x^3 \tan^2(a + i \log(x)) \, dx = 2e^{2ia}x^2 - \frac{2e^{6ia}}{x^2 + e^{2ia}} - 4e^{4ia} \log\left(x^2 + e^{2ia}\right) - \frac{x^4}{4}$$

```
[In] Int[x^3*Tan[a + I*Log[x]]^2,x]
```

```
[Out] 2*E^((2*I)*a)*x^2 - x^4/4 - (2*E^((6*I)*a))/(E^((2*I)*a) + x^2) - 4*E^((4*I
)*a)*Log[E^((2*I)*a) + x^2]
```

Rule 78

```
Int[((a_.) + (b_.)*(x_))*((c_) + (d_.)*(x_))^(n_.)*((e_.) + (f_.)*(x_))^(p_
.), x_Symbol] :> Int[ExpandIntegrand[(a + b*x)*(c + d*x)^n*(e + f*x)^p, x],
 x] /; FreeQ[{a, b, c, d, e, f, n}, x] && NeQ[b*c - a*d, 0] && ((ILtQ[n, 0]
 && ILtQ[p, 0]) || EqQ[p, 1] || (IGtQ[p, 0] && ( !IntegerQ[n] || LeQ[9*p +
5*(n + 2), 0] || GeQ[n + p + 1, 0] || (GeQ[n + p + 2, 0] && RationalQ[a, b,
 c, d, e, f]))))
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 457

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[x^(Simplify[(m + 1)/n] - 1)*(a + b*x)^p
*(c + d*x)^q, x], x, x^n], x] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[
b*c - a*d, 0] && IntegerQ[Simplify[(m + 1)/n]]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2 x^3}{\left(1+\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x^3\left(-ie^{2ia}+ix^2\right)^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{\left(-ie^{2ia}+ix\right)^2 x}{\left(e^{2ia}+x\right)^2}\,dx, x, x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(4e^{2ia}-x+\frac{4e^{6ia}}{\left(e^{2ia}+x\right)^2}-\frac{8e^{4ia}}{e^{2ia}+x}\right)\,dx, x, x^2\right) \\
&= 2e^{2ia}x^2-\frac{x^4}{4}-\frac{2e^{6ia}}{e^{2ia}+x^2}-4e^{4ia}\log\left(e^{2ia}+x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 155 vs. 2(63) = 126.

Time = 0.19 (sec) , antiderivative size = 155, normalized size of antiderivative = 2.46

$$\int x^3\tan^2(a+i\log(x))\,dx = -\frac{x^4}{4}+2x^2\cos(2a)-4i\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\cos(4a)-2\cos(4a)\log\left(1+x^4+2x^2\cos(2a)\right)+2ix^2\sin(2a)+4\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\sin(4a)-2i\log\left(1+x^4+2x^2\cos(2a)\right)\sin(4a)-\frac{2(\cos(5a)+i\sin(5a))}{(1+x^2)\cos(a)-i(-1+x^2)\sin(a)}$$

```
[In] Integrate[x^3*Tan[a + I*Log[x]]^2,x]
```

```
[Out] -1/4*x^4 + 2*x^2*Cos[2*a] - (4*I)*ArcTan[((1 + x^2)*Cot[a])/(-1 + x^2)]*Cos
[4*a] - 2*Cos[4*a]*Log[1 + x^4 + 2*x^2*Cos[2*a]] + (2*I)*x^2*Sin[2*a] + 4*A
rcTan[((1 + x^2)*Cot[a])/(-1 + x^2)]*Sin[4*a] - (2*I)*Log[1 + x^4 + 2*x^2*C
os[2*a]]*Sin[4*a] - (2*(Cos[5*a] + I*Sin[5*a]))/((1 + x^2)*Cos[a] - I*(-1 +
 x^2)*Sin[a])
```

Maple [A] (verified)

Time = 5.16 (sec) , antiderivative size = 52, normalized size of antiderivative = 0.83

method	result	size
risch	$-\frac{9x^4}{4}+\frac{2x^4}{1+\frac{e^{2ia}}{x^2}}+4\,e^{2ia}x^2-4\,e^{4ia}\ln\left(e^{2ia}+x^2\right)$	52

```
[In] int(x^3*tan(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -9/4*x^4+2*x^4/(1+exp(2*I*a)/x^2)+4*exp(2*I*a)*x^2-4*exp(4*I*a)*ln(exp(2*I*
a)+x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 64, normalized size of antiderivative = 1.02

$$\int x^3\tan^2(a+i\log(x))\,dx = -\frac{x^6-7\,x^4e^{(2i\,a)}-8\,x^2e^{(4i\,a)}+16\left(x^2e^{(4i\,a)}+e^{(6i\,a)}\right)\log\left(x^2+e^{(2i\,a)}\right)+8\,e^{(6i\,a)}}{4\left(x^2+e^{(2i\,a)}\right)}$$

```
[In] integrate(x^3*tan(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/4*(x^6 - 7*x^4*e^(2*I*a) - 8*x^2*e^(4*I*a) + 16*(x^2*e^(4*I*a) + e^(6*I*
a))*log(x^2 + e^(2*I*a)) + 8*e^(6*I*a))/(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.17 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.86

$$\int x^3\tan^2(a+i\log(x))\,dx = -\frac{x^4}{4}+2x^2e^{2ia}-4e^{4ia}\log\left(x^2+e^{2ia}\right)-\frac{2e^{6ia}}{x^2+e^{2ia}}$$

```
[In] integrate(x**3*tan(a+I*ln(x))**2,x)
```

```
[Out] -x**4/4 + 2*x**2*exp(2*I*a) - 4*exp(4*I*a)*log(x**2 + exp(2*I*a)) - 2*exp(6
*I*a)/(x**2 + exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 217 vs. 2(46) = 92.

Time = 0.21 (sec) , antiderivative size = 217, normalized size of antiderivative = 3.44

$$\int x^3\tan^2(a+i\log(x))\,dx =$$

$$-\frac{x^6-7\,x^4(\cos(2\,a)+i\,\sin(2\,a))-8\,(2\,(-i\,\cos(4\,a)+\sin(4\,a))\arctan(\sin(2\,a)\,,x^2+\cos(2\,a))+\cos(}{}$$

```
[In] integrate(x^3*tan(a+I*log(x))^2,x, algorithm="maxima")
```

```
[Out] -1/4*(x^6 - 7*x^4*(cos(2*a) + I*sin(2*a)) - 8*(2*(-I*cos(4*a) + sin(4*a))*a
rctan2(sin(2*a), x^2 + cos(2*a)) + cos(4*a) + I*sin(4*a))*x^2 - 16*((-I*cos
(2*a) + sin(2*a))*cos(4*a) + (cos(2*a) + I*sin(2*a))*sin(4*a))*arctan2(sin(
2*a), x^2 + cos(2*a)) + 8*(x^2*(cos(4*a) + I*sin(4*a)) + (cos(2*a) + I*sin(
2*a))*cos(4*a) - (-I*cos(2*a) + sin(2*a))*sin(4*a))*log(x^4 + 2*x^2*cos(2*a
) + cos(2*a)^2 + sin(2*a)^2) + 8*cos(6*a) + 8*I*sin(6*a))/(x^2 + cos(2*a) +
 I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 261 vs. 2(46) = 92.

Time = 0.46 (sec) , antiderivative size = 261, normalized size of antiderivative = 4.14

$$\int x^3 \tan^2(a+i\log(x))\,dx = -\frac{x^6}{4\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)} + \frac{3x^4e^{(2ia)}}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)} - \frac{4x^2e^{(4ia)}\log\left(-x^2-e^{(2ia)}\right)}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} + \frac{17x^2e^{(4ia)}}{4\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)} - \frac{8e^{(6ia)}\log\left(-x^2-e^{(2ia)}\right)}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} + \frac{e^{(6ia)}}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} - \frac{4e^{(8ia)}\log\left(-x^2-e^{(2ia)}\right)}{\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x^2} - \frac{3e^{(8ia)}}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x^2}$$

```
[In] integrate(x^3*tan(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/4*x^6/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) + 3/2*x^4*e^(2*I*a)/(x^2 + e^(
4*I*a)/x^2 + 2*e^(2*I*a)) - 4*x^2*e^(4*I*a)*log(-x^2 - e^(2*I*a))/(x^2 + e^
(4*I*a)/x^2 + 2*e^(2*I*a)) + 17/4*x^2*e^(4*I*a)/(x^2 + e^(4*I*a)/x^2 + 2*e^
(2*I*a)) - 8*e^(6*I*a)*log(-x^2 - e^(2*I*a))/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*
I*a)) + e^(6*I*a)/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) - 4*e^(8*I*a)*log(-x^
2 - e^(2*I*a))/((x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x^2) - 3/2*e^(8*I*a)/((
x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x^2)
```

Mupad [B] (verification not implemented)

Time = 27.49 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.81

$$\int x^3 \tan^2(a+i\log(x))\,dx = -\frac{2\,\mathrm{e}^{a\,6\mathrm{i}}}{x^2+\mathrm{e}^{a\,2\mathrm{i}}} - 4\,\mathrm{e}^{a\,4\mathrm{i}}\,\ln\left(x^2+\mathrm{e}^{a\,2\mathrm{i}}\right) + 2\,x^2\,\mathrm{e}^{a\,2\mathrm{i}} - \frac{x^4}{4}$$

```
[In] int(x^3*tan(a + log(x)*1i)^2,x)
```

```
[Out] 2*x^2*exp(a*2i) - 4*exp(a*4i)*log(exp(a*2i) + x^2) - (2*exp(a*6i))/(exp(a*2
i) + x^2) - x^4/4
```

3.144 $\int x^2 \tan^2(a+i\log(x))\,dx$

Optimal result 1891
Rubi [A] (verified) 1891
Mathematica [A] (verified) 1893
Maple [A] (verified) 1893
Fricas [A] (verification not implemented) 1894
Sympy [A] (verification not implemented) 1894
Maxima [B] (verification not implemented) 1894
Giac [B] (verification not implemented) 1895
Mupad [B] (verification not implemented) 1895

Optimal result

Integrand size = 15, antiderivative size = 62

$$\int x^2 \tan^2(a+i\log(x))\,dx = 6e^{2ia}x-\frac{x^3}{3}-\frac{2e^{2ia}x^3}{e^{2ia}+x^2}-6e^{3ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] 6*exp(2*I*a)*x-1/3*x^3-2*exp(2*I*a)*x^3/(exp(2*I*a)+x^2)-6*exp(3*I*a)*arcta
n(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 62, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.400, Rules used = {4591, 456, 474, 470, 327, 209}

$$\int x^2 \tan^2(a+i\log(x))\,dx = -6e^{3ia}\arctan\left(e^{-ia}x\right)-\frac{2e^{2ia}x^3}{x^2+e^{2ia}}+6e^{2ia}x-\frac{x^3}{3}$$

```
[In] Int[x^2*Tan[a + I*Log[x]]^2,x]
```

```
[Out] 6*E^((2*I)*a)*x - x^3/3 - (2*E^((2*I)*a)*x^3)/(E^((2*I)*a) + x^2) - 6*E^((3
*I)*a)*ArcTan[x/E^(I*a)]
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 327

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(n
 - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*(m + n*p + 1))), x] - Dist[
```

```
a*c^n*((m - n + 1)/(b*(m + n*p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^p, x],
 x] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && GtQ[m, n - 1] && NeQ[m + n*p
 + 1, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 474

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^2, x_Symbol] :> Simp[(-(b*c - a*d)^2)*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)
/(a*b^2*e*n*(p + 1))), x] + Dist[1/(a*b^2*n*(p + 1)), Int[(e*x)^m*(a + b*x^
n)^(p + 1)*Simp[(b*c - a*d)^2*(m + 1) + b^2*c^2*n*(p + 1) + a*b*d^2*n*(p +
1)*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0]
&& IGtQ[n, 0] && LtQ[p, -1]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2 x^2}{\left(1+\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x^2\left(-ie^{2ia}+ix^2\right)^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= -\frac{2e^{2ia}x^3}{e^{2ia}+x^2}-\frac{1}{2}e^{-2ia}\int \frac{x^2\left(-10e^{4ia}+2e^{2ia}x^2\right)}{e^{2ia}+x^2}\,dx \\
&= -\frac{x^3}{3}-\frac{2e^{2ia}x^3}{e^{2ia}+x^2}+\left(6e^{2ia}\right)\int \frac{x^2}{e^{2ia}+x^2}\,dx
\end{aligned}$$

$$= 6e^{2ia}x - \frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia}+x^2} - (6e^{4ia}) \int \frac{1}{e^{2ia}+x^2}\,dx$$
$$= 6e^{2ia}x - \frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia}+x^2} - 6e^{3ia}\arctan\left(e^{-ia}x\right)$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.61

$$\int x^2\tan^2(a+i\log(x))\,dx = -\frac{x^3}{3} + 4x\cos(2a) - 6\arctan(x(\cos(a)-i\sin(a)))\cos(3a) + 4ix\sin(2a) + \frac{2x(\cos(3a)+i\sin(3a))}{(1+x^2)\cos(a)-i(-1+x^2)\sin(a)} - 6i\arctan(x(\cos(a)-i\sin(a)))\sin(3a)$$

```
[In] Integrate[x^2*Tan[a + I*Log[x]]^2,x]
```

```
[Out] -1/3*x^3 + 4*x*Cos[2*a] - 6*ArcTan[x*(Cos[a] - I*Sin[a])]*Cos[3*a] + (4*I)*
x*Sin[2*a] + (2*x*(Cos[3*a] + I*Sin[3*a]))/((1 + x^2)*Cos[a] - I*(-1 + x^2)
*Sin[a]) - (6*I)*ArcTan[x*(Cos[a] - I*Sin[a])]*Sin[3*a]
```

Maple [A] (verified)

Time = 2.92 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.77

method	result	size
risch	$-\frac{7x^3}{3}+\frac{2x^3}{1+\frac{e^{2ia}}{x^2}}+6\,e^{2ia}x-6\arctan\left(x\,e^{-ia}\right)e^{3ia}$	48

```
[In] int(x^2*tan(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -7/3*x^3+2*x^3/(1+exp(2*I*a)/x^2)+6*exp(2*I*a)*x-6*arctan(x*exp(-I*a))*exp(
3*I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.39

$$\int x^2\tan^2(a+i\log(x))\,dx = -\frac{x^5-11\,x^3e^{(2\,i\,a)}-18\,xe^{(4\,i\,a)}+9\left(i\,x^2e^{(3\,i\,a)}+i\,e^{(5\,i\,a)}\right)\log\left(x+i\,e^{(i\,a)}\right)+9\left(-i\,x^2e^{(3\,i\,a)}-i\,e^{(5\,i\,a)}\right)\log\left(x-\right.}{3\left(x^2+e^{(2\,i\,a)}\right)}$$

```
[In] integrate(x^2*tan(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/3*(x^5 - 11*x^3*e^(2*I*a) - 18*x*e^(4*I*a) + 9*(I*x^2*e^(3*I*a) + I*e^(5
*I*a))*log(x + I*e^(I*a)) + 9*(-I*x^2*e^(3*I*a) - I*e^(5*I*a))*log(x - I*e^
(I*a)))/(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.17 (sec) , antiderivative size = 66, normalized size of antiderivative = 1.06

$$\int x^2\tan^2(a+i\log(x))\,dx = -\frac{x^3}{3}+4xe^{2ia}+\frac{2xe^{4ia}}{x^2+e^{2ia}} - 3\left(-i\log\left(x-ie^{ia}\right)+i\log\left(x+ie^{ia}\right)\right)e^{3ia}$$

```
[In] integrate(x**2*tan(a+I*ln(x))**2,x)
```

```
[Out] -x**3/3 + 4*x*exp(2*I*a) + 2*x*exp(4*I*a)/(x**2 + exp(2*I*a)) - 3*(-I*log(x
 - I*exp(I*a)) + I*log(x + I*exp(I*a)))*exp(3*I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 254 vs. 2(45) = 90.

Time = 0.31 (sec) , antiderivative size = 254, normalized size of antiderivative = 4.10

$$\int x^2\tan^2(a+i\log(x))\,dx = -\frac{2\,x^5-22\,x^3(\cos(2\,a)+i\,\sin(2\,a))-36\,x(\cos(4\,a)+i\,\sin(4\,a))-18\left(x^2(\cos(3\,a)+i\,\sin(3\,a))+(\cos(\right.}{}$$

```
[In] integrate(x^2*tan(a+I*log(x))^2,x, algorithm="maxima")
```

```
[Out] -1/6*(2*x^5 - 22*x^3*(cos(2*a) + I*sin(2*a)) - 36*x*(cos(4*a) + I*sin(4*a))
 - 18*(x^2*(cos(3*a) + I*sin(3*a)) + (cos(2*a) + I*sin(2*a))*cos(3*a) - (-I
```

```
*cos(2*a) + sin(2*a))*sin(3*a))*arctan2(2*x*cos(a)/(x^2 + cos(a)^2 - 2*x*si
n(a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a)
+ sin(a)^2)) + 9*(x^2*(-I*cos(3*a) + sin(3*a)) + (-I*cos(2*a) + sin(2*a))*c
os(3*a) + (cos(2*a) + I*sin(2*a))*sin(3*a))*log((x^2 + cos(a)^2 + 2*x*sin(a
) + sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)))/(x^2 + cos(2*a) +
I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 141 vs. $2(45) = 90$.

Time = 0.46 (sec) , antiderivative size = 141, normalized size of antiderivative = 2.27

$$\int x^2\tan^2(a+i\log(x))\,dx = -\frac{x^5}{3\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)}+\frac{10x^3e^{(2ia)}}{3\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)} - 6\arctan\left(xe^{(-ia)}\right)e^{(3ia)}+\frac{35xe^{(4ia)}}{3\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)} + \frac{2xe^{(4ia)}}{x^2+e^{(2ia)}}+\frac{8e^{(6ia)}}{\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x}$$

```
[In] integrate(x^2*tan(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/3*x^5/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) + 10/3*x^3*e^(2*I*a)/(x^2 + e^
(4*I*a)/x^2 + 2*e^(2*I*a)) - 6*arctan(x*e^(-I*a))*e^(3*I*a) + 35/3*x*e^(4*I
*a)/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) + 2*x*e^(4*I*a)/(x^2 + e^(2*I*a)) +
 8*e^(6*I*a)/((x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x)
```

Mupad [B] (verification not implemented)

Time = 27.68 (sec) , antiderivative size = 52, normalized size of antiderivative = 0.84

$$\int x^2\tan^2(a+i\log(x))\,dx = -6\left(\mathrm{e}^{a\,2\mathrm{i}}\right)^{3/2}\mathrm{atan}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)-\frac{x^3}{3}+4\,x\,\mathrm{e}^{a\,2\mathrm{i}}+\frac{2\,x\,\mathrm{e}^{a\,4\mathrm{i}}}{x^2+\mathrm{e}^{a\,2\mathrm{i}}}$$

```
[In] int(x^2*tan(a + log(x)*1i)^2,x)
```

```
[Out] 4*x*exp(a*2i) - x^3/3 - 6*exp(a*2i)^(3/2)*atan(x/exp(a*2i)^(1/2)) + (2*x*ex
p(a*4i))/(exp(a*2i) + x^2)
```

3.145 $\int x \tan^2(a + i\log(x))\,dx$

Optimal result 1896
Rubi [A] (verified) 1896
Mathematica [B] (verified) 1897
Maple [A] (verified) 1898
Fricas [A] (verification not implemented) 1898
Sympy [A] (verification not implemented) 1899
Maxima [B] (verification not implemented) 1899
Giac [B] (verification not implemented) 1899
Mupad [B] (verification not implemented) 1900

Optimal result

Integrand size = 13, antiderivative size = 51

$$\int x \tan^2(a + i\log(x))\,dx = -\frac{x^2}{2} + \frac{2e^{4ia}}{e^{2ia} + x^2} + 2e^{2ia}\log\left(e^{2ia} + x^2\right)$$

```
[Out] -1/2*x^2+2*exp(4*I*a)/(exp(2*I*a)+x^2)+2*exp(2*I*a)*ln(exp(2*I*a)+x^2)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.308$, Rules used = {4591, 456, 455, 45}

$$\int x \tan^2(a + i\log(x))\,dx = \frac{2e^{4ia}}{x^2 + e^{2ia}} + 2e^{2ia}\log\left(x^2 + e^{2ia}\right) - \frac{x^2}{2}$$

```
[In] Int[x*Tan[a + I*Log[x]]^2,x]
```

```
[Out] -1/2*x^2 + (2*E^((4*I)*a))/(E^((2*I)*a) + x^2) + 2*E^((2*I)*a)*Log[E^((2*I)
*a) + x^2]
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2 x}{\left(1+\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x\left(-ie^{2ia}+ix^2\right)^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{\left(-ie^{2ia}+ix\right)^2}{\left(e^{2ia}+x\right)^2}\,dx, x, x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-1-\frac{4e^{4ia}}{\left(e^{2ia}+x\right)^2}+\frac{4e^{2ia}}{e^{2ia}+x}\right)dx, x, x^2\right) \\
&= -\frac{x^2}{2}+\frac{2e^{4ia}}{e^{2ia}+x^2}+2e^{2ia}\log\left(e^{2ia}+x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 135 vs. $2(51) = 102$.

Time = 0.09 (sec) , antiderivative size = 135, normalized size of antiderivative = 2.65

$$\int x\tan^2(a+i\log(x))\,dx = -\frac{x^2}{2}+2i\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\cos(2a) + \cos(2a)\log\left(1+x^4+2x^2\cos(2a)\right) - 2\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\sin(2a) + i\log\left(1+x^4+2x^2\cos(2a)\right)\sin(2a) + \frac{2\cos(3a)+2i\sin(3a)}{(1+x^2)\cos(a)-i\left(-1+x^2\right)\sin(a)}$$

```
[In] Integrate[x*Tan[a + I*Log[x]]^2,x]
```

```
[Out] -1/2*x^2 + (2*I)*ArcTan[((1 + x^2)*Cot[a])/(-1 + x^2)]*Cos[2*a] + Cos[2*a]*
Log[1 + x^4 + 2*x^2*Cos[2*a]] - 2*ArcTan[((1 + x^2)*Cot[a])/(-1 + x^2)]*Sin
[2*a] + I*Log[1 + x^4 + 2*x^2*Cos[2*a]]*Sin[2*a] + (2*Cos[3*a] + (2*I)*Sin[
3*a])/((1 + x^2)*Cos[a] - I*(-1 + x^2)*Sin[a])
```

Maple [A] (verified)

Time = 1.36 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.82

method	result	size
risch	$-\frac{5x^2}{2}+\frac{2x^2}{1+\frac{e^{2ia}}{x^2}}+2\,e^{2ia}\ln\left(e^{2ia}+x^2\right)$	42

```
[In] int(x*tan(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -5/2*x^2+2*x^2/(1+exp(2*I*a)/x^2)+2*exp(2*I*a)*ln(exp(2*I*a)+x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.06

$$\int x\tan^2(a+i\log(x))\,dx = -\frac{x^4+x^2e^{(2ia)}-4\left(x^2e^{(2ia)}+e^{(4ia)}\right)\log\left(x^2+e^{(2ia)}\right)-4\,e^{(4ia)}}{2\left(x^2+e^{(2ia)}\right)}$$

```
[In] integrate(x*tan(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/2*(x^4 + x^2*e^(2*I*a) - 4*(x^2*e^(2*I*a) + e^(4*I*a))*log(x^2 + e^(2*I*
a)) - 4*e^(4*I*a))/(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.15 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.82

$$\int x\tan^2(a+i\log(x))\,dx=-\frac{x^2}{2}+2e^{2ia}\log\left(x^2+e^{2ia}\right)+\frac{2e^{4ia}}{x^2+e^{2ia}}$$

```
[In] integrate(x*tan(a+I*ln(x))**2,x)
[Out] -x**2/2 + 2*exp(2*I*a)*log(x**2 + exp(2*I*a)) + 2*exp(4*I*a)/(x**2 + exp(2*
I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 185 vs. 2(37) = 74.

Time = 0.21 (sec) , antiderivative size = 185, normalized size of antiderivative = 3.63

$$\int x\tan^2(a+i\log(x))\,dx=$$
$$-\frac{x^4+(4(-i\cos(2a)+\sin(2a))\arctan(\sin(2a),x^2+\cos(2a))+\cos(2a)+i\sin(2a))x^2+4(-i\cos$$

```
[In] integrate(x*tan(a+I*log(x))^2,x, algorithm="maxima")
[Out] -1/2*(x^4 + (4*(-I*cos(2*a) + sin(2*a))*arctan2(sin(2*a), x^2 + cos(2*a)) +
 cos(2*a) + I*sin(2*a))*x^2 + 4*(-I*cos(2*a)^2 + 2*cos(2*a)*sin(2*a) + I*si
n(2*a)^2)*arctan2(sin(2*a), x^2 + cos(2*a)) - 2*(x^2*(cos(2*a) + I*sin(2*a)
) + cos(2*a)^2 + 2*I*cos(2*a)*sin(2*a) - sin(2*a)^2)*log(x^4 + 2*x^2*cos(2*
a) + cos(2*a)^2 + sin(2*a)^2) - 4*cos(4*a) - 4*I*sin(4*a))/(x^2 + cos(2*a)
+ I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 221 vs. 2(37) = 74.

Time = 0.46 (sec) , antiderivative size = 221, normalized size of antiderivative = 4.33

$$\int x\tan^2(a+i\log(x))\,dx = -\frac{x^4}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)}+\frac{2x^2e^{(2ia)}\log\left(x^2+e^{(2ia)}\right)}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} - \frac{5x^2e^{(2ia)}}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)}+\frac{4e^{(4ia)}\log\left(x^2+e^{(2ia)}\right)}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} - \frac{3e^{(4ia)}}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)}+\frac{2e^{(6ia)}\log\left(x^2+e^{(2ia)}\right)}{\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x^2} + \frac{e^{(6ia)}}{2\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x^2}$$

```
[In] integrate(x*tan(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/2*x^4/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) + 2*x^2*e^(2*I*a)*log(x^2 + e^
(2*I*a))/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) - 5/2*x^2*e^(2*I*a)/(x^2 + e^(
4*I*a)/x^2 + 2*e^(2*I*a)) + 4*e^(4*I*a)*log(x^2 + e^(2*I*a))/(x^2 + e^(4*I*
a)/x^2 + 2*e^(2*I*a)) - 3/2*e^(4*I*a)/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) +
 2*e^(6*I*a)*log(x^2 + e^(2*I*a))/((x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x^2)
 + 1/2*e^(6*I*a)/((x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x^2)
```

Mupad [B] (verification not implemented)

Time = 28.09 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.80

$$\int x\tan^2(a+i\log(x))\,dx = \frac{2\,\mathrm{e}^{a\,4\mathrm{i}}}{x^2+\mathrm{e}^{a\,2\mathrm{i}}}+2\,\mathrm{e}^{a\,2\mathrm{i}}\,\ln\left(x^2+\mathrm{e}^{a\,2\mathrm{i}}\right)-\frac{x^2}{2}$$

```
[In] int(x*tan(a + log(x)*1i)^2,x)
```

```
[Out] (2*exp(a*4i))/(exp(a*2i) + x^2) + 2*exp(a*2i)*log(exp(a*2i) + x^2) - x^2/2
```

3.146 $\int \tan^2(a + i\log(x))\,dx$

Optimal result . . . 1901
Rubi [A] (verified) . . . 1901
Mathematica [A] (verified) . . . 1903
Maple [A] (verified) . . . 1903
Fricas [B] (verification not implemented) . . . 1903
Sympy [A] (verification not implemented) . . . 1904
Maxima [B] (verification not implemented) . . . 1904
Giac [B] (verification not implemented) . . . 1904
Mupad [B] (verification not implemented) . . . 1905

Optimal result

Integrand size = 11, antiderivative size = 46

$$\int \tan^2(a + i\log(x))\,dx = -x - \frac{2e^{2ia}x}{e^{2ia} + x^2} + 2e^{ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] -x-2*exp(2*I*a)*x/(exp(2*I*a)+x^2)+2*exp(I*a)*arctan(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 46, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.455$, Rules used = {4587, 381, 398, 294, 209}

$$\int \tan^2(a + i\log(x))\,dx = 2e^{ia}\arctan\left(e^{-ia}x\right) - \frac{2e^{2ia}x}{x^2 + e^{2ia}} - x$$

```
[In] Int[Tan[a + I*Log[x]]^2,x]
```

```
[Out] -x - (2*E^((2*I)*a)*x)/(E^((2*I)*a) + x^2) + 2*E^(I*a)*ArcTan[x/E^(I*a)]
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 294

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(
n - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*n*(p + 1))), x] - Dist[c^n
*((m - n + 1)/(b*n*(p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^(p + 1), x], x]
```

```
 /; FreeQ[{a, b, c}, x] && IGtQ[n, 0] && LtQ[p, -1] && GtQ[m + 1, n] &&  !I
LtQ[(m + n*(p + 1) + 1)/n, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 381

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.), x_Symbol
] :> Int[x^(n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; FreeQ[{a, b, c, d
, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[n]
```

Rule 398

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Int[PolynomialDivide[(a + b*x^n)^p, (c + d*x^n)^(-q), x], x] /; FreeQ[{a
, b, c, d}, x] && NeQ[b*c - a*d, 0] && IGtQ[n, 0] && IGtQ[p, 0] && ILtQ[q,
0] && GeQ[p, -q]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1+\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{\left(-ie^{2ia}+ix^2\right)^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= \int \left(-1+\frac{4e^{2ia}x^2}{\left(e^{2ia}+x^2\right)^2}\right)dx \\
&= -x+\left(4e^{2ia}\right)\int \frac{x^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= -x-\frac{2e^{2ia}x}{e^{2ia}+x^2}+\left(2e^{2ia}\right)\int \frac{1}{e^{2ia}+x^2}\,dx \\
&= -x-\frac{2e^{2ia}x}{e^{2ia}+x^2}+2e^{ia}\arctan\left(e^{-ia}x\right)
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.07 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.52

$$\int \tan^2(a+i\log(x))\,dx = 2\arctan(x(\cos(a)-i\sin(a)))(\cos(a)+i\sin(a)) + \frac{-x(3+x^2)\cos(a)+ix(-3+x^2)\sin(a)}{(1+x^2)\cos(a)-i\left(-1+x^2\right)\sin(a)}$$

```
[In] Integrate[Tan[a + I*Log[x]]^2,x]
[Out] 2*ArcTan[x*(Cos[a] - I*Sin[a])]*(Cos[a] + I*Sin[a]) + (-(x*(3 + x^2)*Cos[a]
) + I*x*(-3 + x^2)*Sin[a])/((1 + x^2)*Cos[a] - I*(-1 + x^2)*Sin[a])
```

Maple [A] (verified)

Time = 1.47 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.78

method	result	size
risch	$-3x+\frac{2x}{1+\frac{e^{2ia}}{x^2}}+2\arctan\left(x\,e^{-ia}\right)e^{ia}$	36

```
[In] int(tan(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
[Out] -3*x+2*x/(1+exp(2*I*a)/x^2)+2*arctan(x*exp(-I*a))*exp(I*a)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 77 vs. 2(34) = 68.

Time = 0.25 (sec) , antiderivative size = 77, normalized size of antiderivative = 1.67

$$\int \tan^2(a+i\log(x))\,dx = -\frac{x^3+3\,xe^{(2i\,a)}-\left(i\,x^2e^{(i\,a)}+i\,e^{(3i\,a)}\right)\log\left(x+i\,e^{(i\,a)}\right)-\left(-i\,x^2e^{(i\,a)}-i\,e^{(3i\,a)}\right)\log\left(x-i\,e^{(i\,a)}\right)}{x^2+e^{(2i\,a)}}$$

```
[In] integrate(tan(a+I*log(x))^2,x, algorithm="fricas")
[Out] -(x^3 + 3*x*e^(2*I*a) - (I*x^2*e^(I*a) + I*e^(3*I*a))*log(x + I*e^(I*a)) -
(-I*x^2*e^(I*a) - I*e^(3*I*a))*log(x - I*e^(I*a)))/(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.11

$$\int \tan^2(a+i\log(x))\,dx = -x - \frac{2xe^{2ia}}{x^2+e^{2ia}} - \left(i\log\left(x-ie^{ia}\right) - i\log\left(x+ie^{ia}\right)\right)e^{ia}$$

```
[In] integrate(tan(a+I*ln(x))**2,x)
```

```
[Out] -x - 2*x*exp(2*I*a)/(x**2 + exp(2*I*a)) - (I*log(x - I*exp(I*a)) - I*log(x
+ I*exp(I*a)))*exp(I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 218 vs. 2(34) = 68.

Time = 0.35 (sec) , antiderivative size = 218, normalized size of antiderivative = 4.74

$$\int \tan^2(a+i\log(x))\,dx =$$

$$-\frac{2x^3+6x(\cos(2a)+i\sin(2a))+2\left(x^2(\cos(a)+i\sin(a))+(\cos(a)+i\sin(a))\cos(2a)-(-i\cos(a)\right.}{}$$

```
[In] integrate(tan(a+I*log(x))^2,x, algorithm="maxima")
```

```
[Out] -1/2*(2*x^3 + 6*x*(cos(2*a) + I*sin(2*a)) + 2*(x^2*(cos(a) + I*sin(a)) + (c
os(a) + I*sin(a))*cos(2*a) - (-I*cos(a) + sin(a))*sin(2*a))*arctan2(2*x*cos
(a)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a)^2)/(
x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + (x^2*(I*cos(a) - sin(a)) + (I*co
s(a) - sin(a))*cos(2*a) - (cos(a) + I*sin(a))*sin(2*a))*log((x^2 + cos(a)^2
 + 2*x*sin(a) + sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)))/(x^2 +
 cos(2*a) + I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 114 vs. 2(34) = 68.

Time = 0.38 (sec) , antiderivative size = 114, normalized size of antiderivative = 2.48

$$\int \tan^2(a+i\log(x))\,dx = -\frac{x^3}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} + 2\left(\arctan\left(xe^{(-ia)}\right)e^{(-ia)} - \frac{x}{x^2+e^{(2ia)}}\right)e^{(2ia)} - \frac{6xe^{(2ia)}}{x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}} - \frac{5e^{(4ia)}}{\left(x^2+\frac{e^{(4ia)}}{x^2}+2e^{(2ia)}\right)x}$$

```
[In] integrate(tan(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -x^3/(x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a)) + 2*(arctan(x*e^(-I*a))*e^(-I*a) -
 x/(x^2 + e^(2*I*a)))*e^(2*I*a) - 6*x*e^(2*I*a)/(x^2 + e^(4*I*a)/x^2 + 2*e^
(2*I*a)) - 5*e^(4*I*a)/((x^2 + e^(4*I*a)/x^2 + 2*e^(2*I*a))*x)
```

Mupad [B] (verification not implemented)

Time = 27.84 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.91

$$\int \tan^2(a+i\log(x))\,dx = -x+2\sqrt{e^{a\,2i}}\,\mathrm{atan}\left(\frac{x}{\sqrt{e^{a\,2i}}}\right)-\frac{2\,x\,e^{a\,2i}}{x^2+e^{a\,2i}}$$

```
[In] int(tan(a + log(x)*1i)^2,x)
```

```
[Out] 2*exp(a*2i)^(1/2)*atan(x/exp(a*2i)^(1/2)) - x - (2*x*exp(a*2i))/(exp(a*2i)
+ x^2)
```

3.147 $\int \frac{\tan^2(a+i\log(x))}{x}\,dx$

Optimal result 1906
Rubi [A] (verified) 1906
Mathematica [A] (verified) 1907
Maple [A] (verified) 1907
Fricas [B] (verification not implemented) 1908
Sympy [A] (verification not implemented) 1908
Maxima [A] (verification not implemented) 1908
Giac [A] (verification not implemented) 1908
Mupad [B] (verification not implemented) 1909

Optimal result

Integrand size = 15, antiderivative size = 18

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = -\log(x) - i\tan(a+i\log(x))$$

```
[Out] -ln(x)-I*tan(a+I*ln(x))
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.133, Rules used = {3554, 8}

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = -\log(x) - i\tan(a+i\log(x))$$

```
[In] Int[Tan[a + I*Log[x]]^2/x,x]
```

```
[Out] -Log[x] - I*Tan[a + I*Log[x]]
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$\text{integral} = \text{Subst}\left(\int \tan^2(a+ix)\,dx, x, \log(x)\right)$$
$$= -i\tan(a+i\log(x)) - \text{Subst}\left(\int 1\,dx, x, \log(x)\right)$$
$$= -\log(x) - i\tan(a+i\log(x))$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 28, normalized size of antiderivative = 1.56

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = i\arctan(\tan(a+i\log(x))) - i\tan(a+i\log(x))$$

```
[In] Integrate[Tan[a + I*Log[x]]^2/x,x]
[Out] I*ArcTan[Tan[a + I*Log[x]]] - I*Tan[a + I*Log[x]]
```

Maple [A] (verified)

Time = 0.55 (sec) , antiderivative size = 17, normalized size of antiderivative = 0.94

method	result	size
norman	$-\ln(x) - i\tan(a+i\ln(x))$	17
parallelrisch	$-\ln(x) - i\tan(a+i\ln(x))$	17
risch	$-\ln(x) + \frac{2}{1+\frac{e^{2ia}}{x^2}}$	21
derivativedivides	$-i(\tan(a+i\ln(x)) - \arctan(\tan(a+i\ln(x))))$	24
default	$-i(\tan(a+i\ln(x)) - \arctan(\tan(a+i\ln(x))))$	24

```
[In] int(tan(a+I*ln(x))^2/x,x,method=_RETURNVERBOSE)
[Out] -ln(x)-I*tan(a+I*ln(x))
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 30 vs. 2(14) = 28.

Time = 0.24 (sec) , antiderivative size = 30, normalized size of antiderivative = 1.67

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = -\frac{\left(x^2+e^{(2i\,a)}\right)\log\left(x\right)+2\,e^{(2i\,a)}}{x^2+e^{(2i\,a)}}$$

```
[In] integrate(tan(a+I*log(x))^2/x,x, algorithm="fricas")
[Out] -((x^2 + e^(2*I*a))*log(x) + 2*e^(2*I*a))/(x^2 + e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 22, normalized size of antiderivative = 1.22

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = -\log\left(x\right)-\frac{2e^{2ia}}{x^2+e^{2ia}}$$

```
[In] integrate(tan(a+I*ln(x))**2/x,x)
[Out] -log(x) - 2*exp(2*I*a)/(x**2 + exp(2*I*a))
```

Maxima [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 17, normalized size of antiderivative = 0.94

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = i\,a-\log\left(x\right)-i\,\tan\left(a+i\,\log\left(x\right)\right)$$

```
[In] integrate(tan(a+I*log(x))^2/x,x, algorithm="maxima")
[Out] I*a - log(x) - I*tan(a + I*log(x))
```

Giac [A] (verification not implemented)

none

Time = 0.31 (sec) , antiderivative size = 17, normalized size of antiderivative = 0.94

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = i\,a-\log\left(x\right)-i\,\tan\left(a+i\,\log\left(x\right)\right)$$

```
[In] integrate(tan(a+I*log(x))^2/x,x, algorithm="giac")
[Out] I*a - log(x) - I*tan(a + I*log(x))
```

Mupad [B] (verification not implemented)

Time = 26.82 (sec) , antiderivative size = 16, normalized size of antiderivative = 0.89

$$\int \frac{\tan^2(a+i\log(x))}{x}\,dx = -\ln(x) - \tan(a+\ln(x)\ 1\mathrm{i})\ 1\mathrm{i}$$

```
[In] int(tan(a + log(x)*1i)^2/x,x)
[Out] - tan(a + log(x)*1i)*1i - log(x)
```

3.148 $\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx$

Optimal result 1910
Rubi [A] (verified) 1910
Mathematica [A] (verified) 1912
Maple [A] (verified) 1912
Fricas [A] (verification not implemented) 1912
Sympy [A] (verification not implemented) 1913
Maxima [B] (verification not implemented) 1913
Giac [A] (verification not implemented) 1913
Mupad [B] (verification not implemented) 1914

Optimal result

Integrand size = 15, antiderivative size = 60

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = \frac{e^{2ia}}{x\left(e^{2ia}+x^2\right)}+\frac{3x}{e^{2ia}+x^2}+2e^{-ia}\arctan\left(e^{-ia}x\right)$$

```
[Out] exp(2*I*a)/x/(exp(2*I*a)+x^2)+3*x/(exp(2*I*a)+x^2)+2*arctan(x/exp(I*a))/exp
(I*a)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 60, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.333, Rules used = {4591, 456, 473, 393, 209}

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = 2e^{-ia}\arctan\left(e^{-ia}x\right)+\frac{3x}{x^2+e^{2ia}}+\frac{e^{2ia}}{x\left(x^2+e^{2ia}\right)}$$

```
[In] Int[Tan[a + I*Log[x]]^2/x^2,x]
```

```
[Out] E^((2*I)*a)/(x*(E^((2*I)*a) + x^2)) + (3*x)/(E^((2*I)*a) + x^2) + (2*ArcTan
[x/E^(I*a)])/E^(I*a)
```

Rule 209

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(1/(Rt[a, 2]*Rt[b, 2]))*A
rcTan[Rt[b, 2]*(x/Rt[a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] && (GtQ[a
, 0] || GtQ[b, 0])
```

Rule 393

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)), x_Symbol] :> Si
mp[(-(b*c - a*d))*x*((a + b*x^n)^(p + 1)/(a*b*n*(p + 1))), x] - Dist[(a*d -
 b*c*(n*(p + 1) + 1))/(a*b*n*(p + 1)), Int[(a + b*x^n)^(p + 1), x], x] /; F
reeQ[{a, b, c, d, n, p}, x] && NeQ[b*c - a*d, 0] && (LtQ[p, -1] || ILtQ[1/n
 + p, 0])
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 473

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^2, x_Symbol] :> Simp[c^2*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))
), x] - Dist[1/(a*e^n*(m + 1)), Int[(e*x)^(m + n)*(a + b*x^n)^p*Simp[b*c^2*
n*(p + 1) + c*(b*c - 2*a*d)*(m + 1) - a*(m + 1)*d^2*x^n, x], x], x] /; Free
Q[{a, b, c, d, e, p}, x] && NeQ[b*c - a*d, 0] && IGtQ[n, 0] && LtQ[m, -1] &
& GtQ[n, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1+\frac{e^{2ia}}{x^2}\right)^2 x^2}\,dx \\
&= \int \frac{\left(-ie^{2ia}+ix^2\right)^2}{x^2\left(e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}+x^2\right)} + e^{-2ia}\int \frac{5e^{4ia}-e^{2ia}x^2}{\left(e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}+x^2\right)} + \frac{3x}{e^{2ia}+x^2} + 2\int \frac{1}{e^{2ia}+x^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}+x^2\right)} + \frac{3x}{e^{2ia}+x^2} + 2e^{-ia}\arctan\left(e^{-ia}x\right)
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 72, normalized size of antiderivative = 1.20

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = \frac{1}{x} + 2\arctan(x(\cos(a)-i\sin(a)))\cos(a) - 2i\arctan(x(\cos(a)-i\sin(a)))\sin(a) + \frac{2x(\cos(a)-i\sin(a))}{(1+x^2)\cos(a)-i\,(-1+x^2)\sin(a)}$$

```
[In] Integrate[Tan[a + I*Log[x]]^2/x^2,x]
```

```
[Out] x^(-1) + 2*ArcTan[x*(Cos[a] - I*Sin[a])]*Cos[a] - (2*I)*ArcTan[x*(Cos[a] -
I*Sin[a])]*Sin[a] + (2*x*(Cos[a] - I*Sin[a]))/((1 + x^2)*Cos[a] - I*(-1 + x
^2)*Sin[a])
```

Maple [A] (verified)

Time = 0.87 (sec) , antiderivative size = 38, normalized size of antiderivative = 0.63

method	result	size
risch	$\frac{1}{x}+\frac{2}{x\left(1+\frac{e^{2ia}}{x^2}\right)}+2\arctan\left(x\,e^{-ia}\right)e^{-ia}$	38

```
[In] int(tan(a+I*ln(x))^2/x^2,x,method=_RETURNVERBOSE)
```

```
[Out] 1/x+2/x/(1+exp(2*I*a)/x^2)+2*arctan(x*exp(-I*a))*exp(-I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 78, normalized size of antiderivative = 1.30

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = \frac{3\,x^2e^{(i\,a)}+\left(i\,x^3+i\,xe^{(2i\,a)}\right)\log\left(x+i\,e^{(i\,a)}\right)+\left(-i\,x^3-i\,xe^{(2i\,a)}\right)\log\left(x-i\,e^{(i\,a)}\right)+e^{(3i\,a)}}{x^3e^{(i\,a)}+xe^{(3i\,a)}}$$

```
[In] integrate(tan(a+I*log(x))^2/x^2,x, algorithm="fricas")
```

```
[Out] (3*x^2*e^(I*a) + (I*x^3 + I*x*e^(2*I*a))*log(x + I*e^(I*a)) + (-I*x^3 - I*x
*e^(2*I*a))*log(x - I*e^(I*a)) + e^(3*I*a))/(x^3*e^(I*a) + x*e^(3*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.19 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.90

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = -\frac{-3x^2-e^{2ia}}{x^3+xe^{2ia}} - \left(i\log\left(x-ie^{ia}\right)-i\log\left(x+ie^{ia}\right)\right)e^{-ia}$$

```
[In] integrate(tan(a+I*ln(x))**2/x**2,x)
```

```
[Out] -(-3*x**2 - exp(2*I*a))/(x**3 + x*exp(2*I*a)) - (I*log(x - I*exp(I*a)) - I*
log(x + I*exp(I*a)))*exp(-I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 223 vs. 2(45) = 90.

Time = 0.31 (sec) , antiderivative size = 223, normalized size of antiderivative = 3.72

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx$$

$$= \frac{6x^2 - 2\left(x^3(\cos(a) - i\sin(a)) + ((\cos(a) - i\sin(a))\cos(2a) + (i\cos(a) + \sin(a))\sin(2a))x\right)\arctan\left(\right.}{}$$

```
[In] integrate(tan(a+I*log(x))^2/x^2,x, algorithm="maxima")
```

```
[Out] 1/2*(6*x^2 - 2*(x^3*(cos(a) - I*sin(a)) + ((cos(a) - I*sin(a))*cos(2*a) + (
I*cos(a) + sin(a))*sin(2*a))*x)*arctan2(2*x*cos(a)/(x^2 + cos(a)^2 - 2*x*si
n(a) + sin(a)^2), (x^2 - cos(a)^2 - sin(a)^2)/(x^2 + cos(a)^2 - 2*x*sin(a)
+ sin(a)^2)) + (x^3*(-I*cos(a) - sin(a)) + ((-I*cos(a) - sin(a))*cos(2*a) +
 (cos(a) - I*sin(a))*sin(2*a))*x)*log((x^2 + cos(a)^2 + 2*x*sin(a) + sin(a)
^2)/(x^2 + cos(a)^2 - 2*x*sin(a) + sin(a)^2)) + 2*cos(2*a) + 2*I*sin(2*a))/
(x^3 + x*(cos(2*a) + I*sin(2*a)))
```

Giac [A] (verification not implemented)

none

Time = 0.47 (sec) , antiderivative size = 73, normalized size of antiderivative = 1.22

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = 2\left(\arctan\left(xe^{(-ia)}\right)e^{(-3ia)} + \frac{xe^{(-2ia)}}{x^2+e^{(2ia)}}\right)e^{(2ia)} + \frac{5}{x\left(\frac{e^{(2ia)}}{x^2}+1\right)} + \frac{e^{(2ia)}}{x^3\left(\frac{e^{(2ia)}}{x^2}+1\right)}$$

```
[In] integrate(tan(a+I*log(x))^2/x^2,x, algorithm="giac")
```

```
[Out] 2*(arctan(x*e^(-I*a))*e^(-3*I*a) + x*e^(-2*I*a)/(x^2 + e^(2*I*a)))*e^(2*I*a
) + 5/(x*(e^(2*I*a)/x^2 + 1)) + e^(2*I*a)/(x^3*(e^(2*I*a)/x^2 + 1))
```

Mupad [B] (verification not implemented)

Time = 26.73 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.75

$$\int \frac{\tan^2(a+i\log(x))}{x^2}\,dx = \frac{2\,\mathrm{atan}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}+\frac{3\,x^2+\mathrm{e}^{a\,2\mathrm{i}}}{x^3+\mathrm{e}^{a\,2\mathrm{i}}\,x}$$

```
[In] int(tan(a + log(x)*1i)^2/x^2,x)
```

```
[Out] (2*atan(x/exp(a*2i)^(1/2)))/exp(a*2i)^(1/2) + (exp(a*2i) + 3*x^2)/(x^3 + x*
exp(a*2i))
```

3.149 $\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx$

Optimal result 1915
Rubi [A] (verified) 1915
Mathematica [B] (verified) 1916
Maple [A] (verified) 1917
Fricas [A] (verification not implemented) 1917
Sympy [A] (verification not implemented) 1917
Maxima [F(-2)] 1918
Giac [B] (verification not implemented) 1918
Mupad [B] (verification not implemented) 1918

Optimal result

Integrand size = 15, antiderivative size = 55

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = -\frac{2e^{-2ia}}{1+\frac{e^{2ia}}{x^2}} + \frac{1}{2x^2} - 2e^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right)$$

```
[Out] -2/exp(2*I*a)/(1+exp(2*I*a)/x^2)+1/2/x^2-2*ln(1+exp(2*I*a)/x^2)/exp(2*I*a)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4591, 455, 45}

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = -\frac{2e^{-2ia}}{1+\frac{e^{2ia}}{x^2}} - 2e^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right) + \frac{1}{2x^2}$$

```
[In] Int[Tan[a + I*Log[x]]^2/x^3,x]
```

```
[Out] -2/(E^((2*I)*a)*(1 + E^((2*I)*a)/x^2)) + 1/(2*x^2) - (2*Log[1 + E^((2*I)*a)
/x^2])/E^((2*I)*a)
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1+\frac{e^{2ia}}{x^2}\right)^2 x^3}\,dx\\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \frac{\left(i-ie^{2ia}x\right)^2}{\left(1+e^{2ia}x\right)^2}\,dx, x, \frac{1}{x^2}\right)\right)\\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \left(-1-\frac{4}{\left(1+e^{2ia}x\right)^2}+\frac{4}{1+e^{2ia}x}\right)\,dx, x, \frac{1}{x^2}\right)\right)\\
&= -\frac{2e^{-2ia}}{1+\frac{e^{2ia}}{x^2}}+\frac{1}{2x^2}-2e^{-2ia}\log\left(1+\frac{e^{2ia}}{x^2}\right)\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 150 vs. 2(55) = 110.

Time = 0.13 (sec) , antiderivative size = 150, normalized size of antiderivative = 2.73

$$\begin{aligned}\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = {} & \frac{1}{2x^2}-2i\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\cos(2a)\\
&+4\cos(2a)\log(x)-\cos(2a)\log\left(1+x^4+2x^2\cos(2a)\right)\\
&+\frac{2\cos(a)-2i\sin(a)}{(1+x^2)\cos(a)-i(-1+x^2)\sin(a)}\\
&-2\arctan\left(\frac{(1+x^2)\cot(a)}{-1+x^2}\right)\sin(2a)-4i\log(x)\sin(2a)\\
&+i\log\left(1+x^4+2x^2\cos(2a)\right)\sin(2a)\end{aligned}$$

```
[In] Integrate[Tan[a + I*Log[x]]^2/x^3,x]
```

```
[Out] 1/(2*x^2) - (2*I)*ArcTan[((1 + x^2)*Cot[a])/(-1 + x^2)]*Cos[2*a] + 4*Cos[2*
a]*Log[x] - Cos[2*a]*Log[1 + x^4 + 2*x^2*Cos[2*a]] + (2*Cos[a] - (2*I)*Sin[
a])/((1 + x^2)*Cos[a] - I*(-1 + x^2)*Sin[a]) - 2*ArcTan[((1 + x^2)*Cot[a])/
(-1 + x^2)]*Sin[2*a] - (4*I)*Log[x]*Sin[2*a] + I*Log[1 + x^4 + 2*x^2*Cos[2*
a]]*Sin[2*a]
```

Maple [A] (verified)

Time = 1.25 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.93

method	result	size
risch	$\frac{1}{2x^2}+\frac{2}{x^2\left(1+\frac{e^{2ia}}{x^2}\right)}-2\,e^{-2ia}\ln\left(e^{2ia}+x^2\right)+4\,e^{-2ia}\ln\left(x\right)$	51

```
[In] int(tan(a+I*ln(x))^2/x^3,x,method=_RETURNVERBOSE)
```

```
[Out] 1/2/x^2+2/x^2/(1+exp(2*I*a)/x^2)-2*exp(-2*I*a)*ln(exp(2*I*a)+x^2)+4*exp(-2*
I*a)*ln(x)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.35

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = \frac{5\,x^2e^{(2i\,a)}-4\left(x^4+x^2e^{(2i\,a)}\right)\log\left(x^2+e^{(2i\,a)}\right)+8\left(x^4+x^2e^{(2i\,a)}\right)\log\left(x\right)+e^{(4i\,a)}}{2\left(x^4e^{(2i\,a)}+x^2e^{(4i\,a)}\right)}$$

```
[In] integrate(tan(a+I*log(x))^2/x^3,x, algorithm="fricas")
```

```
[Out] 1/2*(5*x^2*e^(2*I*a) - 4*(x^4 + x^2*e^(2*I*a))*log(x^2 + e^(2*I*a)) + 8*(x^
4 + x^2*e^(2*I*a))*log(x) + e^(4*I*a))/(x^4*e^(2*I*a) + x^2*e^(4*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.28 (sec) , antiderivative size = 61, normalized size of antiderivative = 1.11

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = -\frac{-5x^2-e^{2ia}}{2x^4+2x^2e^{2ia}}+4e^{-2ia}\log\left(x\right)-2e^{-2ia}\log\left(x^2+e^{2ia}\right)$$

```
[In] integrate(tan(a+I*ln(x))**2/x**3,x)
```

```
[Out] -(-5*x**2 - exp(2*I*a))/(2*x**4 + 2*x**2*exp(2*I*a)) + 4*exp(-2*I*a)*log(x)
 - 2*exp(-2*I*a)*log(x**2 + exp(2*I*a))
```

Maxima [F(-2)]

Exception generated.

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = \text{Exception raised: RuntimeError}$$

```
[In] integrate(tan(a+I*log(x))^2/x^3,x, algorithm="maxima")
```

```
[Out] Exception raised: RuntimeError >> ECL says: THROW: The catch RAT-ERR is und
efined.
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 178 vs. 2(41) = 82.

Time = 0.46 (sec) , antiderivative size = 178, normalized size of antiderivative = 3.24

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = -\frac{2\,\log\left(-x^2-e^{(2i\,a)}\right)}{\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}}+\frac{4\,\log(x)}{\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}}-\frac{2}{\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}} - \frac{2\,e^{(2i\,a)}\log\left(-x^2-e^{(2i\,a)}\right)}{x^2\left(\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}\right)}+\frac{4\,e^{(2i\,a)}\log(x)}{x^2\left(\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}\right)} + \frac{e^{(2i\,a)}}{2\,x^2\left(\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}\right)}+\frac{e^{(4i\,a)}}{2\,x^4\left(\frac{e^{(4i\,a)}}{x^2}+e^{(2i\,a)}\right)}$$

```
[In] integrate(tan(a+I*log(x))^2/x^3,x, algorithm="giac")
```

```
[Out] -2*log(-x^2 - e^(2*I*a))/(e^(4*I*a)/x^2 + e^(2*I*a)) + 4*log(x)/(e^(4*I*a)/
x^2 + e^(2*I*a)) - 2/(e^(4*I*a)/x^2 + e^(2*I*a)) - 2*e^(2*I*a)*log(-x^2 - e
^(2*I*a))/(x^2*(e^(4*I*a)/x^2 + e^(2*I*a))) + 4*e^(2*I*a)*log(x)/(x^2*(e^(4
*I*a)/x^2 + e^(2*I*a))) + 1/2*e^(2*I*a)/(x^2*(e^(4*I*a)/x^2 + e^(2*I*a))) +
 1/2*e^(4*I*a)/(x^4*(e^(4*I*a)/x^2 + e^(2*I*a)))
```

Mupad [B] (verification not implemented)

Time = 26.60 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.02

$$\int \frac{\tan^2(a+i\log(x))}{x^3}\,dx = -2\,\mathrm{e}^{-a\,2\mathrm{i}}\,\ln\left(x^2+\mathrm{e}^{a\,2\mathrm{i}}\right)+4\,\mathrm{e}^{-a\,2\mathrm{i}}\,\ln(x)+\frac{\frac{5\,x^2}{2}+\frac{\mathrm{e}^{a\,2\mathrm{i}}}{2}}{x^4+\mathrm{e}^{a\,2\mathrm{i}}\,x^2}$$

```
[In] int(tan(a + log(x)*1i)^2/x^3,x)
```

```
[Out] 4*exp(-a*2i)*log(x) - 2*exp(-a*2i)*log(exp(a*2i) + x^2) + (exp(a*2i)/2 + (5
*x^2)/2)/(x^2*exp(a*2i) + x^4)
```

3.150 $\int (ex)^m \tan(a+i\log(x))\,dx$

Optimal result 1919
Rubi [A] (verified) 1919
Mathematica [A] (verified) 1921
Maple [F] 1921
Fricas [F] 1921
Sympy [F] 1921
Maxima [F] 1922
Giac [F] 1922
Mupad [F(-1)] 1922

Optimal result

Integrand size = 15, antiderivative size = 71

$$\int (ex)^m \tan(a+i\log(x))\,dx = -\frac{i(ex)^{1+m}}{e(1+m)} + \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{e(1+m)}$$

```
[Out] -I*(e*x)^(1+m)/e/(1+m)+2*I*(e*x)^(1+m)*hypergeom([1, -1/2-1/2*m],[1/2-1/2*m
],-exp(2*I*a)/x^2)/e/(1+m)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4591, 470, 346, 371}

$$\int (ex)^m \tan(a+i\log(x))\,dx = \frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-m-1),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{e(m+1)} - \frac{i(ex)^{m+1}}{e(m+1)}$$

```
[In] Int[(e*x)^m*Tan[a + I*Log[x]],x]
```

```
[Out] ((-I)*(e*x)^(1 + m))/(e*(1 + m)) + ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1
, (-1 - m)/2, (1 - m)/2, -(E^((2*I)*a)/x^2)])/(e*(1 + m))
```

Rule 346

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Dist[(-c^
(-1))*(c*x)^(m + 1)*(1/x)^(m + 1), Subst[Int[(a + b/x^n)^p/x^(m + 2), x], x
```

```
, 1/x], x] /; FreeQ[{a, b, c, m, p}, x] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)(ex)^m}{1+\frac{e^{2ia}}{x^2}}\,dx \\
&= -\frac{i(ex)^{1+m}}{e(1+m)}+2i\int \frac{(ex)^m}{1+\frac{e^{2ia}}{x^2}}\,dx \\
&= -\frac{i(ex)^{1+m}}{e(1+m)}-\frac{\left(2i\left(\frac{1}{x}\right)^{1+m}(ex)^{1+m}\right)\text{Subst}\left(\int \frac{x^{-2-m}}{1+e^{2ia}x^2}\,dx,x,\frac{1}{x}\right)}{e} \\
&= -\frac{i(ex)^{1+m}}{e(1+m)}+\frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{e(1+m)}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.19 (sec) , antiderivative size = 124, normalized size of antiderivative = 1.75

$$\int (ex)^m \tan(a+i\log(x))\,dx = \frac{x(ex)^m(\cos(a)-i\sin(a))\left((3+m)\,\text{Hypergeometric2F1}\left(1,\frac{1+m}{2},\frac{3+m}{2},-x^2(\cos(2a)-i\sin(2a))\right)(-i\cos(a\ldots}{(1+m)\ldots}$$

```
[In] Integrate[(e*x)^m*Tan[a + I*Log[x]],x]
```

```
[Out] (x*(e*x)^m*(Cos[a] - I*Sin[a])*((3 + m)*Hypergeometric2F1[1, (1 + m)/2, (3
+ m)/2, -(x^2*(Cos[2*a] - I*Sin[2*a]))]*((-I)*Cos[a] + Sin[a]) + (1 + m)*x^
2*Hypergeometric2F1[1, (3 + m)/2, (5 + m)/2, -(x^2*(Cos[2*a] - I*Sin[2*a]))
]*(I*Cos[a] + Sin[a])))/((1 + m)*(3 + m))
```

Maple [F]

$$\int (ex)^m \tan\left(a+i\ln\left(x\right)\right)dx$$

```
[In] int((e*x)^m*tan(a+I*ln(x)),x)
```

```
[Out] int((e*x)^m*tan(a+I*ln(x)),x)
```

Fricas [F]

$$\int (ex)^m \tan(a+i\log(x))\,dx = \int (ex)^m \tan\left(a+i\,\log\left(x\right)\right)\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] integral((I*x^2 - I*e^(2*I*a))*e^(m*log(e) + m*log(x))/(x^2 + e^(2*I*a)), x
)
```

Sympy [F]

$$\int (ex)^m \tan(a+i\log(x))\,dx = \int (ex)^m \tan\left(a+i\log\left(x\right)\right)dx$$

```
[In] integrate((e*x)**m*tan(a+I*ln(x)),x)
```

```
[Out] Integral((e*x)**m*tan(a + I*log(x)), x)
```

Maxima [F]

$$\int (ex)^m \tan(a+i\log(x))\,dx = \int (ex)^m \tan\left(a+i\,\log\left(x\right)\right)\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x)),x, algorithm="maxima")
[Out] integrate((e*x)^m*tan(a + I*log(x)), x)
```

Giac [F]

$$\int (ex)^m \tan(a+i\log(x))\,dx = \int (ex)^m \tan\left(a+i\,\log\left(x\right)\right)\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x)),x, algorithm="giac")
[Out] integrate((e*x)^m*tan(a + I*log(x)), x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan(a+i\log(x))\,dx = \int \tan(a+\ln\left(x\right)\,1\mathrm{i})\,\left(e\,x\right)^m\,dx$$

```
[In] int(tan(a + log(x)*1i)*(e*x)^m,x)
[Out] int(tan(a + log(x)*1i)*(e*x)^m, x)
```

3.151 $\int (ex)^m \tan^2(a + i\log(x))\,dx$

Optimal result 1923
Rubi [A] (verified) 1923
Mathematica [A] (verified) 1925
Maple [F] 1925
Fricas [F] 1925
Sympy [F] 1926
Maxima [F] 1926
Giac [F] 1926
Mupad [F(-1)] 1926

Optimal result

Integrand size = 17, antiderivative size = 77

$$\int (ex)^m \tan^2(a+i\log(x))\,dx = -\frac{x(ex)^m}{1+m} + \frac{2x(ex)^m}{1+\frac{e^{2ia}}{x^2}} - 2x(ex)^m \,\text{Hypergeometric2F1}\left(1, \frac{1}{2}(-1-m), \frac{1-m}{2}, -\frac{e^{2ia}}{x^2}\right)$$

```
[Out] -x*(e*x)^m/(1+m)+2*x*(e*x)^m/(1+exp(2*I*a)/x^2)-2*x*(e*x)^m*hypergeom([1, -
1/2-1/2*m],[1/2-1/2*m],-exp(2*I*a)/x^2)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 77, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.294$, Rules used = {4591, 511, 474, 470, 371}

$$\int (ex)^m \tan^2(a+i\log(x))\,dx = -2x(ex)^m \,\text{Hypergeometric2F1}\left(1, \frac{1}{2}(-m-1), \frac{1-m}{2}, -\frac{e^{2ia}}{x^2}\right) + \frac{2x(ex)^m}{1+\frac{e^{2ia}}{x^2}} - \frac{x(ex)^m}{m+1}$$

```
[In] Int[(e*x)^m*Tan[a + I*Log[x]]^2,x]
```

```
[Out] -((x*(e*x)^m)/(1 + m)) + (2*x*(e*x)^m)/(1 + E^((2*I)*a)/x^2) - 2*x*(e*x)^m*
Hypergeometric2F1[1, (-1 - m)/2, (1 - m)/2, -(E^((2*I)*a)/x^2)]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 474

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^2, x_Symbol] :> Simp[(-(b*c - a*d)^2)*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)
/(a*b^2*e*n*(p + 1))), x] + Dist[1/(a*b^2*n*(p + 1)), Int[(e*x)^m*(a + b*x^
n)^(p + 1)*Simp[(b*c - a*d)^2*(m + 1) + b^2*c^2*n*(p + 1) + a*b*d^2*n*(p +
1)*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0]
&& IGtQ[n, 0] && LtQ[p, -1]
```

Rule 511

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^(q_), x_Symbol] :> Dist[(-(e*x)^m)*(x^(-1))^m, Subst[Int[(a + b/x^n)^p*((
c + d/x^n)^q/x^(m + 2)), x], x, 1/x], x] /; FreeQ[{a, b, c, d, e, m, p, q},
 x] && NeQ[b*c - a*d, 0] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^2 (ex)^m}{\left(1+\frac{e^{2ia}}{x^2}\right)^2}\,dx\\
&= -\left(\left(\left(\frac{1}{x}\right)^m (ex)^m\right)\text{Subst}\left(\int \frac{x^{-2-m}\left(i-ie^{2ia}x^2\right)^2}{\left(1+e^{2ia}x^2\right)^2}\,dx,x,\frac{1}{x}\right)\right)\\
&= \frac{2x(ex)^m}{1+\frac{e^{2ia}}{x^2}}+\frac{1}{2}\left(e^{-4ia}\left(\frac{1}{x}\right)^m (ex)^m\right)\text{Subst}\left(\int \frac{x^{-2-m}\left(2e^{4ia}(3+2m)+2e^{6ia}x^2\right)}{1+e^{2ia}x^2}\,dx,x,\frac{1}{x}\right)
\end{aligned}
$$

$$= -\frac{x(ex)^m}{1+m} + \frac{2x(ex)^m}{1+\frac{e^{2ia}}{x^2}} + \left(2(1+m)\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}}{1+e^{2ia}x^2}\,dx, x, \frac{1}{x}\right)$$

$$= -\frac{x(ex)^m}{1+m} + \frac{2x(ex)^m}{1+\frac{e^{2ia}}{x^2}} - 2x(ex)^m \,\text{Hypergeometric2F1}\left(1, \frac{1}{2}(-1-m), \frac{1-m}{2}, -\frac{e^{2ia}}{x^2}\right)$$

Mathematica [A] (verified)

Time = 0.31 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.12

$$\int (ex)^m \tan^2(a+i\log(x))\,dx$$
$$= \frac{x(ex)^m \left(-1 + 4\,\text{Hypergeometric2F1}\left(1, \frac{1+m}{2}, \frac{3+m}{2}, -x^2(\cos(2a) - i\sin(2a))\right) - 4\,\text{Hypergeometric2F1}\left(2, \right.\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Tan[a + I*Log[x]]^2,x]
```

```
[Out] (x*(e*x)^m*(-1 + 4*Hypergeometric2F1[1, (1 + m)/2, (3 + m)/2, -(x^2*(Cos[2*
a] - I*Sin[2*a]))] - 4*Hypergeometric2F1[2, (1 + m)/2, (3 + m)/2, -(x^2*(Co
s[2*a] - I*Sin[2*a]))]))/(1 + m)
```

Maple [F]

$$\int (ex)^m \tan(a+i\ln(x))^2\,dx$$

```
[In] int((e*x)^m*tan(a+I*ln(x))^2,x)
```

```
[Out] int((e*x)^m*tan(a+I*ln(x))^2,x)
```

Fricas [F]

$$\int (ex)^m \tan^2(a+i\log(x))\,dx = \int (ex)^m \tan(a+i\log(x))^2\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] integral(-(x^4 - 2*x^2*e^(2*I*a) + e^(4*I*a))*e^(m*log(e) + m*log(x))/(x^4
+ 2*x^2*e^(2*I*a) + e^(4*I*a)), x)
```

Sympy [F]

$$\int (ex)^m \tan^2(a + i\log(x))\,dx = \int (ex)^m \tan^2\left(a + i\log\left(x\right)\right)dx$$

```
[In] integrate((e*x)**m*tan(a+I*ln(x))**2,x)
[Out] Integral((e*x)**m*tan(a + I*log(x))**2, x)
```

Maxima [F]

$$\int (ex)^m \tan^2(a + i\log(x))\,dx = \int (ex)^m \tan\left(a + i\,\log\left(x\right)\right)^2\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x))^2,x, algorithm="maxima")
[Out] integrate((e*x)^m*tan(a + I*log(x))^2, x)
```

Giac [F]

$$\int (ex)^m \tan^2(a + i\log(x))\,dx = \int (ex)^m \tan\left(a + i\,\log\left(x\right)\right)^2\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x))^2,x, algorithm="giac")
[Out] integrate((e*x)^m*tan(a + I*log(x))^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan^2(a + i\log(x))\,dx = \int \tan(a + \ln\left(x\right)\,1\mathrm{i})^2\,(e\,x)^m\,dx$$

```
[In] int(tan(a + log(x)*1i)^2*(e*x)^m,x)
[Out] int(tan(a + log(x)*1i)^2*(e*x)^m, x)
```

3.152 $\int (ex)^m \tan^3(a + i\log(x))\,dx$

Optimal result 1927
Rubi [A] (verified) 1927
Mathematica [A] (verified) 1930
Maple [F] 1930
Fricas [F] 1930
Sympy [F] 1930
Maxima [F] 1931
Giac [F] 1931
Mupad [F(-1)] 1931

Optimal result

Integrand size = 17, antiderivative size = 184

$$\int (ex)^m \tan^3(a+i\log(x))\,dx = -\frac{i(1-m)mx(ex)^m}{2(1+m)}+\frac{i\left(1-\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2}+\frac{ie^{-2ia}\left(e^{2ia}(3+m)+\frac{e^{4ia}(1-m)}{x^2}\right)x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)} - \frac{i(3+2m+m^2)\,x(ex)^m \text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{1+m}$$

```
[Out] -1/2*I*(1-m)*m*x*(e*x)^m/(1+m)+1/2*I*(1-exp(2*I*a)/x^2)^2*x*(e*x)^m/(1+exp(
2*I*a)/x^2)^2+1/2*I*(exp(2*I*a)*(3+m)+exp(4*I*a)*(1-m)/x^2)*x*(e*x)^m/exp(2
*I*a)/(1+exp(2*I*a)/x^2)-I*(m^2+2*m+3)*x*(e*x)^m*hypergeom([1, -1/2-1/2*m],
[1/2-1/2*m],-exp(2*I*a)/x^2)/(1+m)
```

Rubi [A] (verified)

Time = 0.28 (sec) , antiderivative size = 184, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.353, Rules used = {4591, 511, 479, 591, 470, 371}

$$\int (ex)^m \tan^3(a+i\log(x))\,dx = -\frac{i(m^2+2m+3)\,x(ex)^m \text{Hypergeometric2F1}\left(1,\frac{1}{2}(-m-1),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{m+1} + \frac{ie^{-2ia}x\left(\frac{e^{4ia}(1-m)}{x^2}+e^{2ia}(m+3)\right)(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)}+\frac{ix\left(1-\frac{e^{2ia}}{x^2}\right)^2(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2}-\frac{i(1-m)mx(ex)^m}{2(m+1)}$$

```
[In] Int[(e*x)^m*Tan[a + I*Log[x]]^3,x]
```

```
[Out] ((-1/2*I)*(1 - m)*m*x*(e*x)^m)/(1 + m) + ((I/2)*(1 - E^((2*I)*a)/x^2)^2*x*(
e*x)^m)/(1 + E^((2*I)*a)/x^2)^2 + ((I/2)*(E^((2*I)*a)*(3 + m) + (E^((4*I)*a
)*(1 - m))/x^2)*x*(e*x)^m)/(E^((2*I)*a)*(1 + E^((2*I)*a)/x^2)) - (I*(3 + 2*
m + m^2)*x*(e*x)^m*Hypergeometric2F1[1, (-1 - m)/2, (1 - m)/2, -(E^((2*I)*a
)/x^2)])/(1 + m)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 479

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m}, x] && NeQ[b*c - a*d, 0] && IGtQ[n
, 0] && LtQ[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q,
x]
```

Rule 511

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^(q_), x_Symbol] :> Dist[(-(e*x)^m)*(x^(-1))^m, Subst[Int[(a + b/x^n)^p*((
c + d/x^n)^q/x^(m + 2)), x], x, 1/x], x] /; FreeQ[{a, b, c, d, e, m, p, q},
 x] && NeQ[b*c - a*d, 0] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 591

```
Int[((g_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_.)*((e_) + (f_.)*(x_)^(n_)), x_Symbol] :> Simp[(-(b*e - a*f))*(g*x)^(
m + 1)*(a + b*x^n)^(p + 1)*((c + d*x^n)^q/(a*b*g*n*(p + 1))), x] + Dist[1/(
a*b*n*(p + 1)), Int[(g*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 1)*Simp[c*
```

```
(b*e*n*(p + 1) + (b*e - a*f)*(m + 1)) + d*(b*e*n*(p + 1) + (b*e - a*f)*(m +
 n*q + 1))*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, f, g, m}, x] && IGtQ[n,
 0] && LtQ[p, -1] && GtQ[q, 0] &&  !(EqQ[q, 1] && SimplerQ[b*c - a*d, b*e -
 a*f])
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(i-\frac{ie^{2ia}}{x^2}\right)^3(ex)^m}{\left(1+\frac{e^{2ia}}{x^2}\right)^3}\,dx \\
&= -\left(\left(\left(\frac{1}{x}\right)^m(ex)^m\right)\text{Subst}\left(\int\frac{x^{-2-m}(i-ie^{2ia}x^2)^3}{(1+e^{2ia}x^2)^3}\,dx,x,\frac{1}{x}\right)\right) \\
&= \frac{i\left(1-\frac{e^{2ia}}{x^2}\right)^2x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2} \\
&\quad+\frac{1}{4}\left(e^{-2ia}\left(\frac{1}{x}\right)^m(ex)^m\right)\text{Subst}\left(\int\frac{x^{-2-m}(i-ie^{2ia}x^2)\left(2e^{2ia}(3+m)+2e^{4ia}(1-m)x^2\right)}{(1+e^{2ia}x^2)^2}\,dx,x,\frac{1}{x}\right) \\
&= \frac{i\left(1-\frac{e^{2ia}}{x^2}\right)^2x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2}+\frac{ie^{-2ia}\left(e^{2ia}(3+m)+\frac{e^{4ia}(1-m)}{x^2}\right)x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)} \\
&\quad-\frac{1}{8}\left(e^{-4ia}\left(\frac{1}{x}\right)^m(ex)^m\right)\text{Subst}\left(\int\frac{x^{-2-m}\left(-4ie^{4ia}(2+m)(3+m)-4ie^{6ia}(1-m)mx^2\right)}{1+e^{2ia}x^2}\,dx,x,\frac{1}{x}\right) \\
&= -\frac{i(1-m)mx(ex)^m}{2(1+m)}+\frac{i\left(1-\frac{e^{2ia}}{x^2}\right)^2x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2} \\
&\quad+\frac{ie^{-2ia}\left(e^{2ia}(3+m)+\frac{e^{4ia}(1-m)}{x^2}\right)x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)} \\
&\quad+\left(i(3+2m+m^2)\left(\frac{1}{x}\right)^m(ex)^m\right)\text{Subst}\left(\int\frac{x^{-2-m}}{1+e^{2ia}x^2}\,dx,x,\frac{1}{x}\right) \\
&= -\frac{i(1-m)mx(ex)^m}{2(1+m)}+\frac{i\left(1-\frac{e^{2ia}}{x^2}\right)^2x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)^2}+\frac{ie^{-2ia}\left(e^{2ia}(3+m)+\frac{e^{4ia}(1-m)}{x^2}\right)x(ex)^m}{2\left(1+\frac{e^{2ia}}{x^2}\right)} \\
&\quad-\frac{i(3+2m+m^2)\,x(ex)^m\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},-\frac{e^{2ia}}{x^2}\right)}{1+m}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.23 (sec) , antiderivative size = 125, normalized size of antiderivative = 0.68

$$\int (ex)^m \tan^3(a+i\log(x))\,dx = \frac{ix(ex)^m\left(-1+6\,\text{Hypergeometric2F1}\left(1,\frac{1+m}{2},\frac{3+m}{2},-x^2(\cos(2a)-i\sin(2a))\right)-12\,\text{Hypergeometric2F1}\left(2,\right.\right.}{1+m}$$

[In] Integrate[(e*x)^m*Tan[a + I*Log[x]]^3,x]

[Out] (I*x*(e*x)^m*(-1 + 6*Hypergeometric2F1[1, (1 + m)/2, (3 + m)/2, -(x^2*(Cos[2*a] - I*Sin[2*a]))] - 12*Hypergeometric2F1[2, (1 + m)/2, (3 + m)/2, -(x^2*(Cos[2*a] - I*Sin[2*a]))] + 8*Hypergeometric2F1[3, (1 + m)/2, (3 + m)/2, -(x^2*(Cos[2*a] - I*Sin[2*a]))]))/(1 + m)

Maple [F]

$$\int (ex)^m \tan(a+i\ln(x))^3\,dx$$

[In] int((e*x)^m*tan(a+I*ln(x))^3,x)

[Out] int((e*x)^m*tan(a+I*ln(x))^3,x)

Fricas [F]

$$\int (ex)^m \tan^3(a+i\log(x))\,dx = \int (ex)^m \tan(a+i\log(x))^3\,dx$$

[In] integrate((e*x)^m*tan(a+I*log(x))^3,x, algorithm="fricas")

[Out] integral((-I*x^6 + 3*I*x^4*e^(2*I*a) - 3*I*x^2*e^(4*I*a) + I*e^(6*I*a))*e^(m*log(e) + m*log(x))/(x^6 + 3*x^4*e^(2*I*a) + 3*x^2*e^(4*I*a) + e^(6*I*a)), x)

Sympy [F]

$$\int (ex)^m \tan^3(a+i\log(x))\,dx = \int (ex)^m \tan^3(a+i\log(x))\,dx$$

[In] integrate((e*x)**m*tan(a+I*ln(x))**3,x)

[Out] Integral((e*x)**m*tan(a + I*log(x))**3, x)

Maxima [F]

$$\int (ex)^m \tan^3(a + i\log(x))\,dx = \int (ex)^m \tan\left(a + i\,\log\left(x\right)\right)^3\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x))^3,x, algorithm="maxima")
[Out] integrate((e*x)^m*tan(a + I*log(x))^3, x)
```

Giac [F]

$$\int (ex)^m \tan^3(a + i\log(x))\,dx = \int (ex)^m \tan\left(a + i\,\log\left(x\right)\right)^3\,dx$$

```
[In] integrate((e*x)^m*tan(a+I*log(x))^3,x, algorithm="giac")
[Out] integrate((e*x)^m*tan(a + I*log(x))^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan^3(a + i\log(x))\,dx = \int \tan(a + \ln\left(x\right)\,1\mathrm{i})^3\,(e\,x)^m\,dx$$

```
[In] int(tan(a + log(x)*1i)^3*(e*x)^m,x)
[Out] int(tan(a + log(x)*1i)^3*(e*x)^m, x)
```

3.153 $\int \tan^p(a+b\log(x))\,dx$

Optimal result 1932
Rubi [A] (verified) 1932
Mathematica [B] (warning: unable to verify) 1934
Maple [F] 1934
Fricas [F] 1934
Sympy [F] 1935
Maxima [F] 1935
Giac [F] 1935
Mupad [F(-1)] 1935

Optimal result

Integrand size = 9, antiderivative size = 142

$$\int \tan^p(a+b\log(x))\,dx = x\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i}{2b},-p,p,1-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)$$

```
[Out] x*(I*(1-exp(2*I*a)*x^(2*I*b))/(1+exp(2*I*a)*x^(2*I*b)))^p*(1+exp(2*I*a)*x^(
2*I*b))^p*AppellF1(-1/2*I/b,-p,p,1-1/2*I/b,exp(2*I*a)*x^(2*I*b),-exp(2*I*a)
*x^(2*I*b))/((1-exp(2*I*a)*x^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4587, 1986, 441, 440}

$$\int \tan^p(a+b\log(x))\,dx = x\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i}{2b},-p,p,1-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)$$

```
[In] Int[Tan[a + b*Log[x]]^p,x]
```

```
[Out] (x*((I*(1 - E^((2*I)*a)*x^((2*I)*b)))/(1 + E^((2*I)*a)*x^((2*I)*b)))^p*(1 +
 E^((2*I)*a)*x^((2*I)*b))^p*AppellF1[(-1/2*I)/b, -p, p, 1 - (I/2)/b, E^((2*
I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b))])/(1 - E^((2*I)*a)*x^((2*I)*b
))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \left(\frac{i-ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p \, dx \\
&= \left(\left(i-ie^{2ia}x^{2ib}\right)^{-p}\left(\frac{i-ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p\right)\int \left(i-ie^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p} dx \\
&= \left(\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i-ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p\right)\int \left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p} dx \\
&= x\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i}{2b},-p,p,1\right. \\
&\qquad \left.-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)
\end{aligned}
$$

Mathematica [B] (warning: unable to verify)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 330 vs. $2(142) = 284$.

Time = 0.59 (sec) , antiderivative size = 330, normalized size of antiderivative = 2.32

$$\int \tan^p(a+b\log(x))\,dx$$

$$= \frac{(-i+2b)x\left(-\frac{i(-1+e^{2ia}x^{2ib})}{1+e^{2ia}x^{2ib}}\right)^p \text{AppellF1}\left(-\frac{i}{2b},-p\right.}{-2be^{2ia}px^{2ib}\,\text{AppellF1}\left(1-\frac{i}{2b},1-p,p,2-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)-2be^{2ia}px^{2ib}\,\text{AppellF1}\left(1-\frac{i}{2b},-p,1+p\right.}$$

```
[In] Integrate[Tan[a + b*Log[x]]^p,x]
```

```
[Out] ((-I + 2*b)*x*(((-I)*(-1 + E^((2*I)*a)*x^((2*I)*b)))/(1 + E^((2*I)*a)*x^((2
*I)*b)))^p*AppellF1[(-1/2*I)/b, -p, p, 1 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b)
, -(E^((2*I)*a)*x^((2*I)*b))])/(-2*b*E^((2*I)*a)*p*x^((2*I)*b)*AppellF1[1 -
 (I/2)/b, 1 - p, p, 2 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^(
(2*I)*b))] - 2*b*E^((2*I)*a)*p*x^((2*I)*b)*AppellF1[1 - (I/2)/b, -p, 1 + p,
 2 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b))] + (-I +
2*b)*AppellF1[(-1/2*I)/b, -p, p, 1 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^
((2*I)*a)*x^((2*I)*b))])
```

Maple [F]

$$\int \tan\left(a+b\ln\left(x\right)\right)^{p}dx$$

```
[In] int(tan(a+b*ln(x))^p,x)
```

```
[Out] int(tan(a+b*ln(x))^p,x)
```

Fricas [F]

$$\int \tan^p(a+b\log(x))\,dx = \int \tan\left(b\log\left(x\right)+a\right)^{p}\,dx$$

```
[In] integrate(tan(a+b*log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(tan(b*log(x) + a)^p, x)
```

Sympy [F]

$$\int \tan^p(a+b\log(x))\,dx = \int \tan^p\left(a+b\log\left(x\right)\right)dx$$

```
[In] integrate(tan(a+b*ln(x))**p,x)
[Out] Integral(tan(a + b*log(x))**p, x)
```

Maxima [F]

$$\int \tan^p(a+b\log(x))\,dx = \int \tan\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate(tan(a+b*log(x))^p,x, algorithm="maxima")
[Out] integrate(tan(b*log(x) + a)^p, x)
```

Giac [F]

$$\int \tan^p(a+b\log(x))\,dx = \int \tan\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate(tan(a+b*log(x))^p,x, algorithm="giac")
[Out] integrate(tan(b*log(x) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \tan^p(a+b\log(x))\,dx = \int \tan(a+b\,\ln\left(x\right))^p\,dx$$

```
[In] int(tan(a + b*log(x))^p,x)
[Out] int(tan(a + b*log(x))^p, x)
```

3.154 $\int (ex)^m \tan^p(a+b\log(x))\,dx$

Optimal result 1936
Rubi [A] (verified) 1936
Mathematica [A] (verified) 1938
Maple [F] 1938
Fricas [F] 1938
Sympy [F] 1938
Maxima [F] 1939
Giac [F] 1939
Mupad [F(-1)] 1939

Optimal result

Integrand size = 15, antiderivative size = 162

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \frac{(ex)^{1+m}\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2b},-p,p,1-\frac{i(1+m)}{2b},e^{2ia}x^{2ib},-e^{2ia}\right.}{e(1+m)}$$

```
[Out] (e*x)^(1+m)*(I*(1-exp(2*I*a)*x^(2*I*b))/(1+exp(2*I*a)*x^(2*I*b)))^p*(1+exp(
2*I*a)*x^(2*I*b))^p*AppellF1(-1/2*I*(1+m)/b,-p,p,1-1/2*I*(1+m)/b,exp(2*I*a)
*x^(2*I*b),-exp(2*I*a)*x^(2*I*b))/e/(1+m)/((1-exp(2*I*a)*x^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 162, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4591, 1986, 525, 524}

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \frac{(ex)^{m+1}\left(1-e^{2ia}x^{2ib}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i(m+1)}{2b},-p,p,1-\frac{i(m+1)}{2b},e^{2ia}x^{2ib},-e^{2ia}\right.}{e(m+1)}$$

```
[In] Int[(e*x)^m*Tan[a + b*Log[x]]^p,x]
```

```
[Out] ((e*x)^(1 + m)*((I*(1 - E^((2*I)*a)*x^((2*I)*b)))/(1 + E^((2*I)*a)*x^((2*I)
*b)))^p*(1 + E^((2*I)*a)*x^((2*I)*b))^p*AppellF1[((-1/2*I)*(1 + m))/b, -p,
p, 1 - ((I/2)*(1 + m))/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b
))])/(e*(1 + m)*(1 - E^((2*I)*a)*x^((2*I)*b))^p)
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \int (ex)^m \left(\frac{i - ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p \, dx$$

$$= \left(\left(i - ie^{2ia}x^{2ib}\right)^{-p} \left(\frac{i - ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p \left(1+e^{2ia}x^{2ib}\right)^p\right) \int (ex)^m \left(i - ie^{2ia}x^{2ib}\right)^p \left(1 + e^{2ia}x^{2ib}\right)^{-p} dx$$

$$= \left(\left(1-e^{2ia}x^{2ib}\right)^{-p} \left(\frac{i - ie^{2ia}x^{2ib}}{1+e^{2ia}x^{2ib}}\right)^p \left(1+e^{2ia}x^{2ib}\right)^p\right) \int (ex)^m \left(1-e^{2ia}x^{2ib}\right)^p \left(1+e^{2ia}x^{2ib}\right)^{-p} dx$$

$$= \frac{(ex)^{1+m} \left(1-e^{2ia}x^{2ib}\right)^{-p} \left(\frac{i\left(1-e^{2ia}x^{2ib}\right)}{1+e^{2ia}x^{2ib}}\right)^p \left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2b}, -p, p, 1-\frac{i(1+m)}{2b}, e^{2ia}x\right.}{e(1+m)}$$

Mathematica [A] (verified)

Time = 0.70 (sec) , antiderivative size = 157, normalized size of antiderivative = 0.97

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \frac{x(ex)^m \left(1-e^{2ia}x^{2ib}\right)^{-p} \left(-\frac{i(-1+e^{2ia}x^{2ib})}{1+e^{2ia}x^{2ib}}\right)^p \left(1+e^{2ia}x^{2ib}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2b},-p,p,1-\frac{i(1+m)}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)}{1+m}$$

```
[In] Integrate[(e*x)^m*Tan[a + b*Log[x]]^p,x]
[Out] (x*(e*x)^m*(((-I)*(-1 + E^((2*I)*a)*x^((2*I)*b)))/(1 + E^((2*I)*a)*x^((2*I)
*b)))^p*(1 + E^((2*I)*a)*x^((2*I)*b))^p*AppellF1[((-1/2*I)*(1 + m))/b, -p,
p, 1 - ((I/2)*(1 + m))/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b
))])/((1 + m)*(1 - E^((2*I)*a)*x^((2*I)*b))^p)
```

Maple [F]

$$\int (ex)^m \tan\left(a+b\ln(x)\right)^p dx$$

```
[In] int((e*x)^m*tan(a+b*ln(x))^p,x)
[Out] int((e*x)^m*tan(a+b*ln(x))^p,x)
```

Fricas [F]

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \int (ex)^m \tan\left(b\log(x)+a\right)^p \,dx$$

```
[In] integrate((e*x)^m*tan(a+b*log(x))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*tan(b*log(x) + a)^p, x)
```

Sympy [F]

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \int (ex)^m \tan^p\left(a+b\log(x)\right)dx$$

```
[In] integrate((e*x)**m*tan(a+b*ln(x))**p,x)
[Out] Integral((e*x)**m*tan(a + b*log(x))**p, x)
```

Maxima [F]

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \int (ex)^m \tan\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate((e*x)^m*tan(a+b*log(x))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*tan(b*log(x) + a)^p, x)
```

Giac [F]

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \int (ex)^m \tan\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate((e*x)^m*tan(a+b*log(x))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*tan(b*log(x) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan^p(a+b\log(x))\,dx = \int \tan(a+b\,\ln\left(x\right))^p\,(e\,x)^m\,dx$$

```
[In] int(tan(a + b*log(x))^p*(e*x)^m,x)
[Out] int(tan(a + b*log(x))^p*(e*x)^m, x)
```

3.155 $\int \tan^p(a+\log(x))\,dx$

Optimal result 1940
Rubi [A] (verified) 1940
Mathematica [A] (warning: unable to verify) 1942
Maple [F] 1942
Fricas [F] 1942
Sympy [F] 1943
Maxima [F] 1943
Giac [F] 1943
Mupad [F(-1)] 1943

Optimal result

Integrand size = 7, antiderivative size = 120

$$\int \tan^p(a+\log(x))\,dx = \left(1-e^{2ia}x^{2i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{2i})}{1+e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^p x\,\mathrm{AppellF1}\left(-\frac{i}{2},-p,p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)$$

```
[Out] (I*(1-exp(2*I*a)*x^(2*I))/(1+exp(2*I*a)*x^(2*I)))^p*(1+exp(2*I*a)*x^(2*I))^
p*x*AppellF1(-1/2*I,-p,p,1-1/2*I,exp(2*I*a)*x^(2*I),-exp(2*I*a)*x^(2*I))/((
1-exp(2*I*a)*x^(2*I))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.571, Rules used = {4587, 1986, 441, 440}

$$\int \tan^p(a+\log(x))\,dx = x\left(1-e^{2ia}x^{2i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{2i})}{1+e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^p \mathrm{AppellF1}\left(-\frac{i}{2},-p,p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)$$

```
[In] Int[Tan[a + Log[x]]^p,x]
```

```
[Out] (((I*(1 - E^((2*I)*a)*x^(2*I)))/(1 + E^((2*I)*a)*x^(2*I)))^p*(1 + E^((2*I)*
a)*x^(2*I))^p*x*AppellF1[-1/2*I, -p, p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(E^(
(2*I)*a)*x^(2*I))])/(1 - E^((2*I)*a)*x^(2*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \left(\frac{i-ie^{2ia}x^{2i}}{1+e^{2ia}x^{2i}}\right)^p dx \\
&= \left(\left(i-ie^{2ia}x^{2i}\right)^{-p}\left(\frac{i-ie^{2ia}x^{2i}}{1+e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^p\right)\int \left(i-ie^{2ia}x^{2i}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p} dx \\
&= \left(\left(1-e^{2ia}x^{2i}\right)^{-p}\left(\frac{i-ie^{2ia}x^{2i}}{1+e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^p\right)\int \left(1-e^{2ia}x^{2i}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p} dx \\
&= \left(1-e^{2ia}x^{2i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{2i})}{1+e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^p x\,\text{AppellF1}\left(-\frac{i}{2},-p,p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)
\end{aligned}
$$

Mathematica [A] (warning: unable to verify)

Time = 0.46 (sec) , antiderivative size = 240, normalized size of antiderivative = 2.00

$$\int \tan^p(a+\log(x))\,dx$$

$$= \frac{(1+2i)\left(-\frac{i(-1+e^{2ia}x^{2i})}{1+e^{2ia}x^{2i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{2},-p,p,1-\frac{i}{2},e\right.}{(1+2i)\,\text{AppellF1}\left(-\frac{i}{2},-p,p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)-2ie^{2ia}px^{2i}\left(\text{AppellF1}\left(1-\frac{i}{2},1-p,p,2-\frac{i}{2},e^{2ia}x^{2i}\right.\right.}$$

```
[In] Integrate[Tan[a + Log[x]]^p,x]
```

```
[Out] ((1 + 2*I)*(((-I)*(-1 + E^((2*I)*a)*x^(2*I)))/(1 + E^((2*I)*a)*x^(2*I)))^p*
x*AppellF1[-1/2*I, -p, p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*
I))])/((1 + 2*I)*AppellF1[-1/2*I, -p, p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(E^
((2*I)*a)*x^(2*I))] - (2*I)*E^((2*I)*a)*p*x^(2*I)*(AppellF1[1 - I/2, 1 - p,
 p, 2 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*I))] + AppellF1[1 - I/
2, -p, 1 + p, 2 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*I))]))
```

Maple [F]

$$\int \tan\left(a+\ln\left(x\right)\right)^{p}dx$$

```
[In] int(tan(a+ln(x))^p,x)
```

```
[Out] int(tan(a+ln(x))^p,x)
```

Fricas [F]

$$\int \tan^p(a+\log(x))\,dx = \int \tan\left(a+\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(tan(a+log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(tan(a + log(x))^p, x)
```

Sympy [F]

$$\int \tan^p(a+\log(x))\,dx = \int \tan^p\left(a+\log\left(x\right)\right)dx$$

```
[In] integrate(tan(a+ln(x))**p,x)
[Out] Integral(tan(a + log(x))**p, x)
```

Maxima [F]

$$\int \tan^p(a+\log(x))\,dx = \int \tan\left(a+\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(tan(a+log(x))^p,x, algorithm="maxima")
[Out] integrate(tan(a + log(x))^p, x)
```

Giac [F]

$$\int \tan^p(a+\log(x))\,dx = \int \tan\left(a+\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(tan(a+log(x))^p,x, algorithm="giac")
[Out] integrate(tan(a + log(x))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \tan^p(a+\log(x))\,dx = \int \tan(a+\ln\left(x\right))^p\,dx$$

```
[In] int(tan(a + log(x))^p,x)
[Out] int(tan(a + log(x))^p, x)
```

3.156 $\int \tan^p(a+2\log(x))\,dx$

Optimal result 1944
Rubi [A] (verified) 1944
Mathematica [A] (warning: unable to verify) 1946
Maple [F] 1946
Fricas [F] 1946
Sympy [F] 1947
Maxima [F] 1947
Giac [F(-1)] 1947
Mupad [F(-1)] 1947

Optimal result

Integrand size = 9, antiderivative size = 120

$$\int \tan^p(a+2\log(x))\,dx = \left(1-e^{2ia}x^{4i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{4i})}{1+e^{2ia}x^{4i}}\right)^p\left(1+e^{2ia}x^{4i}\right)^p x\,\text{AppellF1}\left(-\frac{i}{4},-p,p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)$$

```
[Out] (I*(1-exp(2*I*a)*x^(4*I))/(1+exp(2*I*a)*x^(4*I)))^p*(1+exp(2*I*a)*x^(4*I))^
p*x*AppellF1(-1/4*I,-p,p,1-1/4*I,exp(2*I*a)*x^(4*I),-exp(2*I*a)*x^(4*I))/((
1-exp(2*I*a)*x^(4*I))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4587, 1986, 441, 440}

$$\int \tan^p(a+2\log(x))\,dx = x\left(1-e^{2ia}x^{4i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{4i})}{1+e^{2ia}x^{4i}}\right)^p\left(1+e^{2ia}x^{4i}\right)^p\text{AppellF1}\left(-\frac{i}{4},-p,p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)$$

```
[In] Int[Tan[a + 2*Log[x]]^p,x]
```

```
[Out] (((I*(1 - E^((2*I)*a)*x^(4*I)))/(1 + E^((2*I)*a)*x^(4*I)))^p*(1 + E^((2*I)*
a)*x^(4*I))^p*x*AppellF1[-1/4*I, -p, p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(E^(
(2*I)*a)*x^(4*I))])/(1 - E^((2*I)*a)*x^(4*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \left(\frac{i - ie^{2ia}x^{4i}}{1+e^{2ia}x^{4i}}\right)^p\,dx \\
&= \left(\left(i-ie^{2ia}x^{4i}\right)^{-p}\left(\frac{i-ie^{2ia}x^{4i}}{1+e^{2ia}x^{4i}}\right)^p\left(1+e^{2ia}x^{4i}\right)^p\right)\int \left(i-ie^{2ia}x^{4i}\right)^p\left(1+e^{2ia}x^{4i}\right)^{-p}\,dx \\
&= \left(\left(1-e^{2ia}x^{4i}\right)^{-p}\left(\frac{i-ie^{2ia}x^{4i}}{1+e^{2ia}x^{4i}}\right)^p\left(1+e^{2ia}x^{4i}\right)^p\right)\int \left(1-e^{2ia}x^{4i}\right)^p\left(1+e^{2ia}x^{4i}\right)^{-p}\,dx \\
&= \left(1-e^{2ia}x^{4i}\right)^{-p}\left(\frac{i(1-e^{2ia}x^{4i})}{1+e^{2ia}x^{4i}}\right)^p\left(1+e^{2ia}x^{4i}\right)^p x\,\text{AppellF1}\left(-\frac{i}{4},-p,p,1\right. \\
&\qquad \left.-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)
\end{aligned}$$

Mathematica [A] (warning: unable to verify)

Time = 0.39 (sec) , antiderivative size = 240, normalized size of antiderivative = 2.00

$$\int \tan^p(a+2\log(x))\,dx$$
$$=\frac{(1+4i)\left(-\frac{i(-1+e^{2ia}x^{4i})}{1+e^{2ia}x^{4i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{4},-p,p,1-\frac{i}{4},e^{\cdots}\right)}{(1+4i)\,\text{AppellF1}\left(-\frac{i}{4},-p,p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)-4ie^{2ia}px^{4i}\left(\text{AppellF1}\left(1-\frac{i}{4},1-p,p,2-\frac{i}{4},e^{2ia}x^{4i}\cdots\right.\right.}$$

```
[In] Integrate[Tan[a + 2*Log[x]]^p,x]
```

```
[Out] ((1 + 4*I)*(((-I)*(-1 + E^((2*I)*a)*x^(4*I)))/(1 + E^((2*I)*a)*x^(4*I)))^p*
x*AppellF1[-1/4*I, -p, p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*
I))])/((1 + 4*I)*AppellF1[-1/4*I, -p, p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(E^
((2*I)*a)*x^(4*I))] - (4*I)*E^((2*I)*a)*p*x^(4*I)*(AppellF1[1 - I/4, 1 - p,
 p, 2 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*I))] + AppellF1[1 - I/
4, -p, 1 + p, 2 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*I))]))
```

Maple [F]

$$\int \tan\left(a+2\ln\left(x\right)\right)^{p}dx$$

```
[In] int(tan(a+2*ln(x))^p,x)
```

```
[Out] int(tan(a+2*ln(x))^p,x)
```

Fricas [F]

$$\int \tan^p(a+2\log(x))\,dx=\int \tan\left(a+2\,\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(tan(a+2*log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(tan(a + 2*log(x))^p, x)
```

Sympy [F]

$$\int \tan^p(a+2\log(x))\,dx = \int \tan^p\left(a+2\log\left(x\right)\right)dx$$

```
[In] integrate(tan(a+2*ln(x))**p,x)
[Out] Integral(tan(a + 2*log(x))**p, x)
```

Maxima [F]

$$\int \tan^p(a+2\log(x))\,dx = \int \tan\left(a+2\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(tan(a+2*log(x))^p,x, algorithm="maxima")
[Out] integrate(tan(a + 2*log(x))^p, x)
```

Giac [F(-1)]

Timed out.

$$\int \tan^p(a+2\log(x))\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+2*log(x))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \tan^p(a+2\log(x))\,dx = \int \tan(a+2\,\ln\left(x\right))^p\,dx$$

```
[In] int(tan(a + 2*log(x))^p,x)
[Out] int(tan(a + 2*log(x))^p, x)
```

3.157 $\int \tan^p(a+3\log(x))\,dx$

Optimal result 1948
Rubi [A] (verified) 1948
Mathematica [A] (warning: unable to verify) 1950
Maple [F] 1950
Fricas [F] 1950
Sympy [F] 1951
Maxima [F] 1951
Giac [F(-1)] 1951
Mupad [F(-1)] 1951

Optimal result

Integrand size = 9, antiderivative size = 120

$$\int \tan^p(a+3\log(x))\,dx = \left(1-e^{2ia}x^{6i}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{6i}\right)}{1+e^{2ia}x^{6i}}\right)^p\left(1+e^{2ia}x^{6i}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6},-p,p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)$$

```
[Out] (I*(1-exp(2*I*a)*x^(6*I))/(1+exp(2*I*a)*x^(6*I)))^p*(1+exp(2*I*a)*x^(6*I))^
p*x*AppellF1(-1/6*I,-p,p,1-1/6*I,exp(2*I*a)*x^(6*I),-exp(2*I*a)*x^(6*I))/((
1-exp(2*I*a)*x^(6*I))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4587, 1986, 441, 440}

$$\int \tan^p(a+3\log(x))\,dx = x\left(1-e^{2ia}x^{6i}\right)^{-p}\left(\frac{i\left(1-e^{2ia}x^{6i}\right)}{1+e^{2ia}x^{6i}}\right)^p\left(1+e^{2ia}x^{6i}\right)^p\,\text{AppellF1}\left(-\frac{i}{6},-p,p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)$$

```
[In] Int[Tan[a + 3*Log[x]]^p,x]
```

```
[Out] (((I*(1 - E^((2*I)*a)*x^(6*I)))/(1 + E^((2*I)*a)*x^(6*I)))^p*(1 + E^((2*I)*
a)*x^(6*I))^p*x*AppellF1[-1/6*I, -p, p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(E^(
(2*I)*a)*x^(6*I))])/(1 - E^((2*I)*a)*x^(6*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4587

```
Int[Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((I - I*E^(2
*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b, d
, p}, x]
```

Rubi steps

$$\text{integral} = \int \left(\frac{i - ie^{2ia}x^{6i}}{1 + e^{2ia}x^{6i}}\right)^p dx$$

$$= \left(\left(i - ie^{2ia}x^{6i}\right)^{-p}\left(\frac{i - ie^{2ia}x^{6i}}{1 + e^{2ia}x^{6i}}\right)^p\left(1 + e^{2ia}x^{6i}\right)^p\right)\int \left(i - ie^{2ia}x^{6i}\right)^p\left(1 + e^{2ia}x^{6i}\right)^{-p} dx$$

$$= \left(\left(1 - e^{2ia}x^{6i}\right)^{-p}\left(\frac{i - ie^{2ia}x^{6i}}{1 + e^{2ia}x^{6i}}\right)^p\left(1 + e^{2ia}x^{6i}\right)^p\right)\int \left(1 - e^{2ia}x^{6i}\right)^p\left(1 + e^{2ia}x^{6i}\right)^{-p} dx$$

$$= \left(1 - e^{2ia}x^{6i}\right)^{-p}\left(\frac{i(1 - e^{2ia}x^{6i})}{1 + e^{2ia}x^{6i}}\right)^p\left(1 + e^{2ia}x^{6i}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6}, -p, p, 1 - \frac{i}{6}, e^{2ia}x^{6i}, -e^{2ia}x^{6i}\right)$$

Mathematica [A] (warning: unable to verify)

Time = 0.57 (sec) , antiderivative size = 240, normalized size of antiderivative = 2.00

$$\int \tan^p(a+3\log(x))\,dx$$
$$=\frac{(1+6i)\left(-\frac{i(-1+e^{2ia}x^{6i})}{1+e^{2ia}x^{6i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6},-p,p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)}{(1+6i)\,\text{AppellF1}\left(-\frac{i}{6},-p,p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)-6ie^{2ia}px^{6i}\left(\text{AppellF1}\left(1-\frac{i}{6},1-p,p,2-\frac{i}{6},e^{2ia}x^{6i},\ldots\right)\ldots\right)}$$

```
[In] Integrate[Tan[a + 3*Log[x]]^p,x]
[Out] ((1 + 6*I)*(((-I)*(-1 + E^((2*I)*a)*x^(6*I)))/(1 + E^((2*I)*a)*x^(6*I)))^p*
x*AppellF1[-1/6*I, -p, p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*
I))])/((1 + 6*I)*AppellF1[-1/6*I, -p, p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(E^
((2*I)*a)*x^(6*I))] - (6*I)*E^((2*I)*a)*p*x^(6*I)*(AppellF1[1 - I/6, 1 - p,
 p, 2 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*I))] + AppellF1[1 - I/
6, -p, 1 + p, 2 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*I))]))
```

Maple [F]

$$\int \tan\left(a+3\ln\left(x\right)\right)^{p}dx$$

```
[In] int(tan(a+3*ln(x))^p,x)
[Out] int(tan(a+3*ln(x))^p,x)
```

Fricas [F]

$$\int \tan^p(a+3\log(x))\,dx=\int \tan\left(a+3\,\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(tan(a+3*log(x))^p,x, algorithm="fricas")
[Out] integral(tan(a + 3*log(x))^p, x)
```

Sympy [F]

$$\int \tan^p(a + 3\log(x))\,dx = \int \tan^p\left(a + 3\log\left(x\right)\right)dx$$

```
[In] integrate(tan(a+3*ln(x))**p,x)
[Out] Integral(tan(a + 3*log(x))**p, x)
```

Maxima [F]

$$\int \tan^p(a + 3\log(x))\,dx = \int \tan\left(a + 3\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(tan(a+3*log(x))^p,x, algorithm="maxima")
[Out] integrate(tan(a + 3*log(x))^p, x)
```

Giac [F(-1)]

Timed out.

$$\int \tan^p(a + 3\log(x))\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+3*log(x))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \tan^p(a + 3\log(x))\,dx = \int \tan(a + 3\,\ln\left(x\right))^p\,dx$$

```
[In] int(tan(a + 3*log(x))^p,x)
[Out] int(tan(a + 3*log(x))^p, x)
```

3.158 $\int x^3 \tan(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 1952
Rubi [A] (verified) . . . 1952
Mathematica [B] (verified) . . . 1954
Maple [F] . . . 1954
Fricas [F] . . . 1954
Sympy [F] . . . 1955
Maxima [F] . . . 1955
Giac [F(-1)] . . . 1955
Mupad [F(-1)] . . . 1955

Optimal result

Integrand size = 17, antiderivative size = 71

$$\int x^3 \tan(d(a+b\log(cx^n)))\,dx = -\frac{ix^4}{4} + \frac{1}{2}ix^4 \text{Hypergeometric2F1}\left(1, -\frac{2i}{bdn}, 1-\frac{2i}{bdn}, -e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] -1/4*I*x^4+1/2*I*x^4*hypergeom([1, -2*I/b/d/n],[1-2*I/b/d/n],-exp(2*I*a*d)*
(c*x^n)^(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4593, 4591, 470, 371}

$$\int x^3 \tan(d(a+b\log(cx^n)))\,dx = \frac{1}{2}ix^4 \text{Hypergeometric2F1}\left(1, -\frac{2i}{bdn}, 1-\frac{2i}{bdn}, -e^{2iad}(cx^n)^{2ibd}\right) - \frac{ix^4}{4}$$

```
[In] Int[x^3*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (-1/4*I)*x^4 + (I/2)*x^4*Hypergeometric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*
d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int x^{-1+\frac{4}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^4}{4}+\frac{\left(2ix^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^4}{4}+\frac{1}{2}ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 146 vs. 2(71) = 142.

Time = 5.64 (sec) , antiderivative size = 146, normalized size of antiderivative = 2.06

$$\int x^3 \tan (d(a+b\log (cx^n))) \, dx = \frac{x^4 \left(2ie^{2id(a+b\log(cx^n))} \text{Hypergeometric2F1}\left(1, 1-\frac{2i}{bdn}, 2-\frac{2i}{bdn}, -e^{2id(a+b\log(cx^n))}\right) + (-2i+bdn) \text{Hypergeome}\right.}{-8-4ibdn}$$

```
[In] Integrate[x^3*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (x^4*((2*I)*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (2*I)/(
b*d*n), 2 - (2*I)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-2*I + b*d*n
)*Hypergeometric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n), -E^((2*I)*d*(a +
b*Log[c*x^n]))]))/(-8 - (4*I)*b*d*n)
```

Maple [F]

$$\int x^3 \tan (d(a+b\ln (c\,x^n)))\,dx$$

```
[In] int(x^3*tan(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x^3*tan(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x^3 \tan (d(a+b\log (cx^n))) \, dx = \int x^3 \tan ((b\log (cx^n)+a)d) \, dx$$

```
[In] integrate(x^3*tan(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x^3*tan(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x^3 \tan (d(a + b\log (cx^n)))\,dx = \int x^3 \tan (ad + bd\log (cx^n))\,dx$$

```
[In] integrate(x**3*tan(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x**3*tan(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x^3 \tan (d(a + b\log (cx^n)))\,dx = \int x^3 \tan ((b\log (cx^n) + a)d)\,dx$$

```
[In] integrate(x^3*tan(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x^3*tan((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int x^3 \tan (d(a + b\log (cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate(x^3*tan(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^3 \tan (d(a + b\log (cx^n)))\,dx = \int x^3 \tan(d\,(a + b\,\ln (c\,x^n)))\,dx$$

```
[In] int(x^3*tan(d*(a + b*log(c*x^n))),x)
[Out] int(x^3*tan(d*(a + b*log(c*x^n))), x)
```

3.159 $\int x^2 \tan(d(a+b\log(cx^n)))\,dx$

Optimal result 1956
Rubi [A] (verified) 1956
Mathematica [B] (verified) 1958
Maple [F] 1958
Fricas [F] 1958
Sympy [F] 1959
Maxima [F] 1959
Giac [F(-1)] 1959
Mupad [F(-1)] 1959

Optimal result

Integrand size = 17, antiderivative size = 75

$$\int x^2 \tan(d(a+b\log(cx^n)))\,dx = -\frac{ix^3}{3} + \frac{2}{3}ix^3 \text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] -1/3*I*x^3+2/3*I*x^3*hypergeom([1, -3/2*I/b/d/n],[1-3/2*I/b/d/n],-exp(2*I*a
*d)*(c*x^n)^(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 75, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4593, 4591, 470, 371}

$$\int x^2 \tan(d(a+b\log(cx^n)))\,dx = \frac{2}{3}ix^3 \text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right) - \frac{ix^3}{3}$$

```
[In] Int[x^2*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (-1/3*I)*x^3 + ((2*I)/3)*x^3*Hypergeometric2F1[1, ((-3*I)/2)/(b*d*n), 1 - (
(3*I)/2)/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^3}{3}+\frac{\left(2ix^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^3}{3}+\frac{2}{3}ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 155 vs. 2(75) = 150.

Time = 4.49 (sec) , antiderivative size = 155, normalized size of antiderivative = 2.07

$$\int x^2 \tan (d(a + b\log (cx^n)))\,dx$$
$$= \frac{x^3 \left(3ie^{2id(a+b\log(cx^n))} \text{Hypergeometric2F1}\left(1, 1 - \frac{3i}{2bdn}, 2 - \frac{3i}{2bdn}, -e^{2id(a+b\log(cx^n))}\right) + (-3i + 2bdn)\,\text{Hypergeo}\right.}{-9 - 6ibdn}$$

```
[In] Integrate[x^2*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (x^3*((3*I)*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - ((3*I)/
2)/(b*d*n), 2 - ((3*I)/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-3*I
 + 2*b*d*n)*Hypergeometric2F1[1, ((-3*I)/2)/(b*d*n), 1 - ((3*I)/2)/(b*d*n),
 -E^((2*I)*d*(a + b*Log[c*x^n]))]))/(-9 - (6*I)*b*d*n)
```

Maple [F]

$$\int x^2 \tan (d(a + b\ln (c\,x^n)))\,dx$$

```
[In] int(x^2*tan(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x^2*tan(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x^2 \tan (d(a + b\log (cx^n)))\,dx = \int x^2 \tan ((b\log (cx^n) + a)d)\,dx$$

```
[In] integrate(x^2*tan(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x^2*tan(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x^2 \tan(d(a + b\log(cx^n)))\,dx = \int x^2 \tan(ad + bd\log(cx^n))\,dx$$

```
[In] integrate(x**2*tan(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x**2*tan(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x^2 \tan(d(a + b\log(cx^n)))\,dx = \int x^2 \tan((b\log(cx^n) + a)d)\,dx$$

```
[In] integrate(x^2*tan(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x^2*tan((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int x^2 \tan(d(a + b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate(x^2*tan(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \tan(d(a + b\log(cx^n)))\,dx = \int x^2 \tan(d(a + b\ln(c x^n)))\,dx$$

```
[In] int(x^2*tan(d*(a + b*log(c*x^n))),x)
[Out] int(x^2*tan(d*(a + b*log(c*x^n))), x)
```

3.160 $\int x \tan(d(a+b\log(cx^n)))\,dx$

Optimal result 1960
Rubi [A] (verified) 1960
Mathematica [B] (verified) 1962
Maple [F] 1962
Fricas [F] 1962
Sympy [F] 1963
Maxima [F] 1963
Giac [F(-1)] 1963
Mupad [F(-1)] 1963

Optimal result

Integrand size = 15, antiderivative size = 69

$$\int x\tan(d(a+b\log(cx^n)))\,dx=-\frac{ix^2}{2}+ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] -1/2*I*x^2+I*x^2*hypergeom([1, -I/b/d/n],[1-I/b/d/n],-exp(2*I*a*d)*(c*x^n)^
(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 69, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4593, 4591, 470, 371}

$$\int x\tan(d(a+b\log(cx^n)))\,dx=ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)-\frac{ix^2}{2}$$

```
[In] Int[x*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (-1/2*I)*x^2 + I*x^2*Hypergeometric2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), -(E^
((2*I)*a*d)*(c*x^n)^((2*I)*b*d))]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^2}{2}+\frac{\left(2ix^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -\frac{ix^2}{2}+ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 146 vs. 2(69) = 138.

Time = 4.77 (sec) , antiderivative size = 146, normalized size of antiderivative = 2.12

$$\int x \tan (d(a+b\log (cx^n)))\,dx$$
$$= \frac{x^2\left(ie^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bdn},2-\frac{i}{bdn},-e^{2id(a+b\log(cx^n))}\right)+(-i+bdn)\,\text{Hypergeometri}\right.}{-2-2ibdn}$$

```
[In] Integrate[x*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (x^2*(I*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - I/(b*d*n),
2 - I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-I + b*d*n)*Hypergeometr
ic2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]))/(-
2 - (2*I)*b*d*n)
```

Maple [F]

$$\int x \tan (d(a+b\ln (c\,x^n)))\,dx$$

```
[In] int(x*tan(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x*tan(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x \tan (d(a+b\log (cx^n)))\,dx = \int x \tan ((b\log (cx^n)+a)d)\,dx$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x*tan(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x\tan\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\tan\left(ad+bd\log\left(cx^n\right)\right)dx$$

```
[In] integrate(x*tan(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x*tan(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x\tan\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\tan\left((b\log\left(cx^n\right)+a)d\right)\,dx$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x*tan((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int x\tan\left(d(a+b\log\left(cx^n\right))\right)\,dx=\text{Timed out}$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x\tan\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\tan(d\,(a+b\,\ln\left(c\,x^n\right)))\,dx$$

```
[In] int(x*tan(d*(a + b*log(c*x^n))),x)
[Out] int(x*tan(d*(a + b*log(c*x^n))), x)
```

3.161 $\int \tan(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 1964
Rubi [A] (verified) . . . 1964
Mathematica [B] (verified) . . . 1966
Maple [F] . . . 1966
Fricas [F] . . . 1966
Sympy [F] . . . 1967
Maxima [F] . . . 1967
Giac [F(-1)] . . . 1967
Mupad [F(-1)] . . . 1967

Optimal result

Integrand size = 13, antiderivative size = 67

$$\int \tan(d(a+b\log(cx^n)))\,dx = -ix+2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] -I*x+2*I*x*hypergeom([1, -1/2*I/b/d/n],[1-1/2*I/b/d/n],-exp(2*I*a*d)*(c*x^n
)^(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 67, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.308, Rules used = {4589, 4591, 470, 371}

$$\int \tan(d(a+b\log(cx^n)))\,dx = 2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)-ix$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (-I)*x + (2*I)*x*Hypergeometric2F1[1, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n),
-(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4589

```
Int[Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Tan[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -ix+\frac{\left(2ix(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= -ix+2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 151 vs. 2(67) = 134.

Time = 7.74 (sec) , antiderivative size = 151, normalized size of antiderivative = 2.25

$$\int \tan (d(a+b\log (cx^n)))\,dx$$
$$=\frac{x\left(-e^{2id(a+b\log(cx^n))}\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bdn},2-\frac{i}{2bdn},-e^{2id(a+b\log(cx^n))}\right)+(1+2ibdn)\,\text{Hypergeome}\right.}{-i+2bdn}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (x*(-(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (I/2)/(b*d*n)
, 2 - (I/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]) + (1 + (2*I)*b*d*n)*
Hypergeometric2F1[1, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), -E^((2*I)*d*(a +
b*Log[c*x^n]))]))/(-I + 2*b*d*n)
```

Maple [F]

$$\int \tan (d(a+b\ln (c\,x^n)))\,dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(tan(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int \tan (d(a+b\log (cx^n)))\,dx=\int \tan ((b\log (cx^n)+a)d)\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(tan(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int \tan \left(d(a+b\log \left(cx^n\right))\right)\,dx = \int \tan \left(d(a+b\log \left(cx^n\right))\right)dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n))),x)
[Out] Integral(tan(d*(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \tan \left(d(a+b\log \left(cx^n\right))\right)\,dx = \int \tan \left((b\log \left(cx^n\right)+a)d\right)\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(tan((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int \tan \left(d(a+b\log \left(cx^n\right))\right)\,dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \tan \left(d(a+b\log \left(cx^n\right))\right)\,dx = \int \tan\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n))),x)
[Out] int(tan(d*(a + b*log(c*x^n))), x)
```

3.162 $\int \frac{\tan(d(a+b\log(cx^n)))}{x} dx$

Optimal result . . . 1968
Rubi [A] (verified) . . . 1968
Mathematica [A] (verified) . . . 1969
Maple [A] (verified) . . . 1969
Fricas [A] (verification not implemented) . . . 1969
Sympy [A] (verification not implemented) . . . 1970
Maxima [A] (verification not implemented) . . . 1970
Giac [F(-1)] . . . 1970
Mupad [B] (verification not implemented) . . . 1971

Optimal result

Integrand size = 17, antiderivative size = 26

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x} dx = -\frac{\log(\cos(ad+bd\log(cx^n)))}{bdn}$$

```
[Out] -ln(cos(a*d+b*d*ln(c*x^n)))/b/d/n
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 26, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}} = 0.059$, Rules used = {3556}

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x} dx = -\frac{\log(\cos(ad+bd\log(cx^n)))}{bdn}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]/x,x]
```

```
[Out] -(Log[Cos[a*d + b*d*Log[c*x^n]]]/(b*d*n))
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \tan(d(a+bx))\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{\log(\cos(ad+bd\log(cx^n)))}{bdn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 25, normalized size of antiderivative = 0.96

$$\int \frac{\tan (d(a+b\log (cx^n)))}{x}\,dx = -\frac{\log (\cos (d(a+b\log (cx^n))))}{bdn}$$

`[In] Integrate[Tan[d*(a + b*Log[c*x^n])]/x,x]`

`[Out] -(Log[Cos[d*(a + b*Log[c*x^n])]]/(b*d*n))`

Maple [A] (verified)

Time = 0.20 (sec) , antiderivative size = 30, normalized size of antiderivative = 1.15

method	result
derivativedivides	$\frac{\ln\left(1+\tan(d(a+b\ln(c\,x^n)))^2\right)}{2nbd}$
default	$\frac{\ln\left(1+\tan(d(a+b\ln(c\,x^n)))^2\right)}{2nbd}$
parallelrisch	$\frac{\ln\left(1+\tan(d(a+b\ln(c\,x^n)))^2\right)}{2nbd}$
risch	$-i\ln(x)+\frac{2ia}{nb}+\frac{2i\ln(c)}{n}+\frac{2i\ln(x^n)}{n}-\frac{\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{n}+\frac{\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}{n}+$

`[In] int(tan(d*(a+b*ln(c*x^n)))/x,x,method=_RETURNVERBOSE)`

`[Out] 1/2/n/b/d*ln(1+tan(d*(a+b*ln(c*x^n)))^2)`

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.35

$$\int \frac{\tan (d(a+b\log (cx^n)))}{x}\,dx = -\frac{\log \left(\frac{1}{2}\,\cos \left(2\,bdn\log (x)+2\,bd\log (c)+2\,ad\right)+\frac{1}{2}\right)}{2\,bdn}$$

`[In] integrate(tan(d*(a+b*log(c*x^n)))/x,x, algorithm="fricas")`

`[Out] -1/2*log(1/2*cos(2*b*d*n*log(x) + 2*b*d*log(c) + 2*a*d) + 1/2)/(b*d*n)`

Sympy [A] (verification not implemented)

Time = 1.40 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.69

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x}\,dx = \begin{cases} \log(x)\tan(ad) & \text{for } b=0 \\ 0 & \text{for } d=0 \\ \log(x)\tan(ad+bd\log(c)) & \text{for } n=0 \\ -\frac{\log(\cos(ad+bd\log(cx^n)))}{bdn} & \text{otherwise} \end{cases}$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))/x,x)
[Out] Piecewise((log(x)*tan(a*d), Eq(b, 0)), (0, Eq(d, 0)), (log(x)*tan(a*d + b*d
*log(c)), Eq(n, 0)), (-log(cos(a*d + b*d*log(c*x**n)))/(b*d*n), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.21 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.92

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x}\,dx = \frac{\log(\sec((b\log(cx^n)+a)d))}{bdn}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x,x, algorithm="maxima")
[Out] log(sec((b*log(c*x^n) + a)*d))/(b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.34 (sec) , antiderivative size = 38, normalized size of antiderivative = 1.46

$$\int \frac{\tan (d(a + b\log (cx^n)))}{x}\,dx = \ln (x)\ 1\mathrm{i} - \frac{\ln \left(\mathrm{e}^{a\,d\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,d\,2\mathrm{i}}+1\right)}{b\,d\,n}$$

```
[In] int(tan(d*(a + b*log(c*x^n)))/x,x)
[Out] log(x)*1i - log(exp(a*d*2i)*(c*x^n)^(b*d*2i) + 1)/(b*d*n)
```

3.163 $\int \frac{\tan(d(a+b\log(cx^n)))}{x^2} dx$

Optimal result 1972
Rubi [A] (verified) 1972
Mathematica [B] (verified) 1973
Maple [F] 1974
Fricas [F] 1974
Sympy [F] 1974
Maxima [F] 1974
Giac [F(-1)] 1975
Mupad [F(-1)] 1975

Optimal result

Integrand size = 17, antiderivative size = 71

$$\int \frac{\tan\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx=\frac{i}{x}-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},-e^{2iad}\left(cx^n\right)^{2ibd}\right)}{x}$$

```
[Out] I/x-2*I*hypergeom([1, 1/2*I/b/d/n],[1+1/2*I/b/d/n],-exp(2*I*a*d)*(c*x^n)^(2
*I*b*d))/x
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4593, 4591, 470, 371}

$$\int \frac{\tan\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx=\frac{i}{x}-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},-e^{2iad}\left(cx^n\right)^{2ibd}\right)}{x}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]/x^2,x]
```

```
[Out] I/x - ((2*I)*Hypergeometric2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(b*d*n), -(E^((2
*I)*a*d)*(c*x^n)^((2*I)*b*d))])/x
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{nx}\\
&= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx}\\
&= \frac{i}{x}+\frac{\left(2i(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx}\\
&= \frac{i}{x}-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{x}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 153 vs. 2(71) = 142.

Time = 3.30 (sec) , antiderivative size = 153, normalized size of antiderivative = 2.15

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x^2}\,dx$$

$$= \frac{-e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{2bdn},2+\frac{i}{2bdn},-e^{2id(a+b\log(cx^n))}\right)+(1-2ibdn)\,\text{Hypergeomet}}{(i+2bdn)x}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]/x^2,x]
```

```
[Out] (-(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + (I/2)/(b*d*n), 2
 + (I/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]) + (1 - (2*I)*b*d*n)*Hyp
ergeometric2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[
c*x^n]))])/((I + 2*b*d*n)*x)
```

Maple [F]

$$\int \frac{\tan \left(d(a+b\ln \left(c\,x^{n}\right))\right)}{x^{2}}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))/x^2,x)
```

```
[Out] int(tan(d*(a+b*ln(c*x^n)))/x^2,x)
```

Fricas [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{2}}\,dx=\int \frac{\tan \left(\left(b\log \left(cx^{n}\right)+a\right)d\right)}{x^{2}}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^2,x, algorithm="fricas")
```

```
[Out] integral(tan(b*d*log(c*x^n) + a*d)/x^2, x)
```

Sympy [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{2}}\,dx=\int \frac{\tan \left(ad+bd\log \left(cx^{n}\right)\right)}{x^{2}}\,dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))/x**2,x)
```

```
[Out] Integral(tan(a*d + b*d*log(c*x**n))/x**2, x)
```

Maxima [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{2}}\,dx=\int \frac{\tan \left(\left(b\log \left(cx^{n}\right)+a\right)d\right)}{x^{2}}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^2,x, algorithm="maxima")
```

```
[Out] integrate(tan((b*log(c*x^n) + a)*d)/x^2, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan \left(d(a+b\log \left(cx^n\right))\right)}{x^2} \, dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\tan \left(d(a+b\log \left(cx^n\right))\right)}{x^2} \, dx = \int \frac{\tan(d\left(a+b\,\ln\left(c\,x^n\right)\right))}{x^2} \, dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))/x^2,x)
[Out] int(tan(d*(a + b*log(c*x^n)))/x^2, x)
```

3.164 $\int \frac{\tan(d(a+b\log(cx^n)))}{x^3} dx$

Optimal result 1976
Rubi [A] (verified) 1976
Mathematica [B] (verified) 1977
Maple [F] 1978
Fricas [F] 1978
Sympy [F] 1978
Maxima [F] 1978
Giac [F] 1979
Mupad [F(-1)] 1979

Optimal result

Integrand size = 17, antiderivative size = 69

$$\int \frac{\tan (d(a+b\log (cx^n)))}{x^3} dx = \frac{i}{2x^2} - \frac{i \text{Hypergeometric2F1}\left(1, \frac{i}{bdn}, 1+\frac{i}{bdn}, -e^{2iad}(cx^n)^{2ibd}\right)}{x^2}$$

```
[Out] 1/2*I/x^2-I*hypergeom([1, I/b/d/n],[1+I/b/d/n],-exp(2*I*a*d)*(c*x^n)^(2*I*b
*d))/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 69, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4593, 4591, 470, 371}

$$\int \frac{\tan (d(a+b\log (cx^n)))}{x^3} dx = \frac{i}{2x^2} - \frac{i \text{Hypergeometric2F1}\left(1, \frac{i}{bdn}, 1+\frac{i}{bdn}, -e^{2iad}(cx^n)^{2ibd}\right)}{x^2}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]/x^3,x]
```

```
[Out] (I/2)/x^2 - (I*Hypergeometric2F1[1, I/(b*d*n), 1 + I/(b*d*n), -(E^((2*I)*a*
d)*(c*x^n)^((2*I)*b*d))])/x^2
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{i}{2x^2}+\frac{\left(2i(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{i}{2x^2}-\frac{i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{x^2}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 147 vs. 2(69) = 138.

Time = 2.81 (sec) , antiderivative size = 147, normalized size of antiderivative = 2.13

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x^3}\,dx$$
$$= \frac{-e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bdn},2+\frac{i}{bdn},-e^{2id(a+b\log(cx^n))}\right)+(1-ibdn)\,\text{Hypergeometric2}}{2(i+bdn)x^2}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]/x^3,x]
```

```
[Out] (-(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + I/(b*d*n), 2 + I
/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]) + (1 - I*b*d*n)*Hypergeometric2
F1[1, I/(b*d*n), 1 + I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))])/(2*(I + b
*d*n)*x^2)
```

Maple [F]

$$\int \frac{\tan \left(d(a+b\ln \left(c\,x^{n}\right))\right)}{x^{3}}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))/x^3,x)
```

```
[Out] int(tan(d*(a+b*ln(c*x^n)))/x^3,x)
```

Fricas [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{3}}\,dx=\int \frac{\tan \left((b\log \left(cx^{n}\right)+a)d\right)}{x^{3}}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^3,x, algorithm="fricas")
```

```
[Out] integral(tan(b*d*log(c*x^n) + a*d)/x^3, x)
```

Sympy [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{3}}\,dx=\int \frac{\tan \left(ad+bd\log \left(cx^{n}\right)\right)}{x^{3}}\,dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))/x**3,x)
```

```
[Out] Integral(tan(a*d + b*d*log(c*x**n))/x**3, x)
```

Maxima [F]

$$\int \frac{\tan \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{3}}\,dx=\int \frac{\tan \left((b\log \left(cx^{n}\right)+a)d\right)}{x^{3}}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^3,x, algorithm="maxima")
```

```
[Out] integrate(tan((b*log(c*x^n) + a)*d)/x^3, x)
```

Giac [F]

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\tan((b\log(cx^n)+a)d)}{x^3}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))/x^3,x, algorithm="giac")
[Out] integrate(tan((b*log(c*x^n) + a)*d)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\tan(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\tan(d\,(a+b\,\ln(c\,x^n)))}{x^3}\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))/x^3,x)
[Out] int(tan(d*(a + b*log(c*x^n)))/x^3, x)
```

3.165 $\int x^3 \tan^2(d(a+b\log(cx^n)))\,dx$

Optimal result 1980
Rubi [A] (verified) 1980
Mathematica [A] (verified) 1982
Maple [F] 1983
Fricas [F] 1983
Sympy [F(-1)] 1983
Maxima [F] 1983
Giac [F(-1)] 1984
Mupad [F(-1)] 1984

Optimal result

Integrand size = 19, antiderivative size = 159

$$\int x^3 \tan^2(d(a+b\log(cx^n)))\,dx = \frac{(4i-bdn)x^4}{4bdn} + \frac{ix^4\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/4*(4*I-b*d*n)*x^4/b/d/n+I*x^4*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^4*hypergeom([1, -2*I/b/d/n],[1-2*I/b
/d/n],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.22 (sec) , antiderivative size = 159, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.263, Rules used = {4593, 4591, 516, 470, 371}

$$\int x^3 \tan^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^4\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{x^4(-bdn+4i)}{4bdn}$$

```
[In] Int[x^3*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((4*I - b*d*n)*x^4)/(4*b*d*n) + (I*x^4*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^4*Hypergeom
etric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*
I)*b*d))])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^4(cx^n)^{-4/n}\right) \text{Subst}\left(\int x^{-1+\frac{4}{n}} \tan^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x^4(cx^n)^{-4/n}\right) \text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2}\,dx, x, cx^n\right)}{n}$$

$$= \frac{ix^4\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(ie^{-2iad}x^4(cx^n)^{-4/n}\right) \text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(-\frac{2e^{2iad}(4-ibdn)}{n}+\frac{2e^{4iad}(4+ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bdn}$$

$$= -\frac{1}{4}\left(1-\frac{4i}{bdn}\right)x^4 + \frac{ix^4\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(8ix^4(cx^n)^{-4/n}\right) \text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bdn^2}$$

$$= -\frac{1}{4}\left(1-\frac{4i}{bdn}\right)x^4 + \frac{ix^4\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 5.60 (sec) , antiderivative size = 179, normalized size of antiderivative = 1.13

$$\int x^3\tan^2(d(a+b\log(cx^n)))\,dx = -\frac{x^4\left(-8e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{2i}{bdn},2-\frac{2i}{bdn},-e^{2id(a+b\log(cx^n))}\right)+(-2i+bdn)\left(bdn+4i\right.\right.}{4bdn(-2i+bdn)}$$

```
[In] Integrate[x^3*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/4*(x^4*(-8*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (2*I)
/(b*d*n), 2 - (2*I)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-2*I + b*d
*n)*(b*d*n + (4*I)*Hypergeometric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n),
-E^((2*I)*d*(a + b*Log[c*x^n]))] - 4*Tan[d*(a + b*Log[c*x^n])])))/(b*d*n*(-
2*I + b*d*n))
```

Maple [F]

$$\int x^3 \tan \left(d(a+b\ln \left(c\,x^n\right))\right)^2 dx$$

[In] int(x^3*tan(d*(a+b*ln(c*x^n)))^2,x)

[Out] int(x^3*tan(d*(a+b*ln(c*x^n)))^2,x)

Fricas [F]

$$\int x^3 \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int x^3 \tan\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^3*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")

[Out] integral(x^3*tan(b*d*log(c*x^n) + a*d)^2, x)

Sympy [F(-1)]

Timed out.

$$\int x^3 \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Timed out}$$

[In] integrate(x**3*tan(d*(a+b*ln(c*x**n)))**2,x)

[Out] Timed out

Maxima [F]

$$\int x^3 \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int x^3 \tan\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^3*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")

[Out] -1/4*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^4*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^4*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^4 + 2*(b*d*n*cos(2*b*d*log(c)) - 4*sin(2*b*d*log(c)))*x^4*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*n*sin(2*b*d*log(c)) + 4*cos(2*b*d*log(c)))*x^4*sin(2*b*d*log(x^n) + 2*a*d) + 32*(2*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b

```
*d*log(x^n) + 2*a*d)^2)*integrate((x^3*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*
d*log(c)) + x^3*cos(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n
^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*
log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(
c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b
^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log
(x^n) + 2*a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*
d) - 2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d
*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*
d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a
*d)^2 + b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x^3 \tan^2(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate(x^3*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^3 \tan^2(d(a+b\log(cx^n)))\,dx = \int x^3\,\tan(d\,(a+b\,\ln(c\,x^n)))^2\,dx$$

```
[In] int(x^3*tan(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x^3*tan(d*(a + b*log(c*x^n)))^2, x)
```

3.166 $\int x^2 \tan^2(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 1985
Rubi [A] (verified) . . . 1985
Mathematica [A] (verified) . . . 1987
Maple [F] . . . 1988
Fricas [F] . . . 1988
Sympy [F] . . . 1988
Maxima [F] . . . 1988
Giac [F(-1)] . . . 1989
Mupad [F(-1)] . . . 1989

Optimal result

Integrand size = 19, antiderivative size = 163

$$\int x^2 \tan^2(d(a+b\log(cx^n)))\,dx = \frac{(3i-bdn)x^3}{3bdn} + \frac{ix^3\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/3*(3*I-b*d*n)*x^3/b/d/n+I*x^3*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^3*hypergeom([1, -3/2*I/b/d/n],[1-3/2
*I/b/d/n],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.22 (sec) , antiderivative size = 163, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.263, Rules used = {4593, 4591, 516, 470, 371}

$$\int x^2 \tan^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^3\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{x^3(-bdn+3i)}{3bdn}$$

```
[In] Int[x^2*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((3*I - b*d*n)*x^3)/(3*b*d*n) + (I*x^3*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^3*Hypergeom
etric2F1[1, ((-3*I)/2)/(b*d*n), 1 - ((3*I)/2)/(b*d*n), -(E^((2*I)*a*d)*(c*x
^n)^((2*I)*b*d))])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\tan^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{ix^3\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(ie^{-2iad}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(-\frac{2e^{2iad}(3-ibdn)}{n}+\frac{2e^{4iad}(3+ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdn}$$

$$= -\frac{1}{3}\left(1-\frac{3i}{bdn}\right)x^3 + \frac{ix^3\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(6ix^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2}$$

$$= -\frac{1}{3}\left(1-\frac{3i}{bdn}\right)x^3 + \frac{ix^3\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 4.70 (sec) , antiderivative size = 189, normalized size of antiderivative = 1.16

$$\int x^2\tan^2(d(a+b\log(cx^n)))\,dx = -\frac{x^3\left(-9e^{2id(a+b\log(cx^n))}\text{Hypergeometric2F1}\left(1,1-\frac{3i}{2bdn},2-\frac{3i}{2bdn},-e^{2id(a+b\log(cx^n))}\right)+(-3i+2bdn)\left(bdn\right.\right.}{3bdn(-3i+2b}$$

```
[In] Integrate[x^2*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/3*(x^3*(-9*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - ((3*I
)/2)/(b*d*n), 2 - ((3*I)/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-3
*I + 2*b*d*n)*(b*d*n + (3*I)*Hypergeometric2F1[1, ((-3*I)/2)/(b*d*n), 1 - (
(3*I)/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] - 3*Tan[d*(a + b*Log[c*x
^n])])))/(b*d*n*(-3*I + 2*b*d*n))
```

Maple [F]

$$\int x^2\tan\left(d(a+b\ln\left(c\,x^n\right))\right)^2dx$$

[In] int(x^2*tan(d*(a+b*ln(c*x^n)))^2,x)

[Out] int(x^2*tan(d*(a+b*ln(c*x^n)))^2,x)

Fricas [F]

$$\int x^2\tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x^2\tan\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^2*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")

[Out] integral(x^2*tan(b*d*log(c*x^n) + a*d)^2, x)

Sympy [F]

$$\int x^2\tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x^2\tan^2\left(ad+bd\log\left(cx^n\right)\right)dx$$

[In] integrate(x**2*tan(d*(a+b*ln(c*x**n)))**2,x)

[Out] Integral(x**2*tan(a*d + b*d*log(c*x**n))**2, x)

Maxima [F]

$$\int x^2\tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x^2\tan\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^2*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")

[Out] -1/3*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^3*cos(2*b*d*l
og(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*
x^3*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^3 + 2*(b*d*n*cos(2*b*d*log(c))
- 3*sin(2*b*d*log(c)))*x^3*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*n*sin(2*b*d
*log(c)) + 3*cos(2*b*d*log(c)))*x^3*sin(2*b*d*log(x^n) + 2*a*d) + 18*(2*b^2
*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(
2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*
d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^
2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b

```
*d*log(x^n) + 2*a*d)^2)*integrate((x^2*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*
d*log(c)) + x^2*cos(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n
^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*
log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(
c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b
^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log
(x^n) + 2*a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*
d) - 2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d
*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*
d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a
*d)^2 + b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x^2 \tan^2(d(a + b\log(cx^n)))\, dx = \text{Timed out}$$

```
[In] integrate(x^2*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \tan^2(d(a + b\log(cx^n)))\, dx = \int x^2\,\tan\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^2 \,dx$$

```
[In] int(x^2*tan(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x^2*tan(d*(a + b*log(c*x^n)))^2, x)
```

3.167 $\int x \tan^2(d(a+b\log(cx^n)))\,dx$

Optimal result 1990
Rubi [A] (verified) 1990
Mathematica [A] (verified) 1992
Maple [F] 1993
Fricas [F] 1993
Sympy [F] 1993
Maxima [F] 1993
Giac [F(-1)] 1994
Mupad [F(-1)] 1994

Optimal result

Integrand size = 17, antiderivative size = 159

$$\int x \tan^2(d(a+b\log(cx^n)))\,dx = \frac{(2i-bdn)x^2}{2bdn}+\frac{ix^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/2*(2*I-b*d*n)*x^2/b/d/n+I*x^2*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^2*hypergeom([1, -I/b/d/n],[1-I/b/d/n
],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.20 (sec) , antiderivative size = 159, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.294, Rules used = {4593, 4591, 516, 470, 371}

$$\int x \tan^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)}+\frac{x^2(-bdn+2i)}{2bdn}$$

```
[In] Int[x*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((2*I - b*d*n)*x^2)/(2*b*d*n) + (I*x^2*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^2*Hypergeom
etric2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d
))])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\tan^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{ix^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(ie^{-2iad}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(-\frac{2e^{2iad}(2-ibdn)}{n}+\frac{2e^{4iad}(2+ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdn}$$

$$= -\frac{1}{2}\left(1-\frac{2i}{bdn}\right)x^2 + \frac{ix^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(4ix^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2}$$

$$= -\frac{1}{2}\left(1-\frac{2i}{bdn}\right)x^2 + \frac{ix^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 4.88 (sec) , antiderivative size = 179, normalized size of antiderivative = 1.13

$$\int x\tan^2(d(a+b\log(cx^n)))\,dx = -\frac{x^2\left(-2e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bdn},2-\frac{i}{bdn},-e^{2id(a+b\log(cx^n))}\right)+(-i+bdn)\left(bdn+2i\right.\right.}{2bdn(-i+bdn)}$$

```
[In] Integrate[x*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/2*(x^2*(-2*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - I/(b*
d*n), 2 - I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (-I + b*d*n)*(b*d*n
 + (2*I)*Hypergeometric2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), -E^((2*I)*d*(a +
 b*Log[c*x^n]))] - 2*Tan[d*(a + b*Log[c*x^n])])))/(b*d*n*(-I + b*d*n))
```

Maple [F]

$$\int x\tan\left(d(a+b\ln\left(c\,x^{n}\right))\right)^{2}dx$$

```
[In] int(x*tan(d*(a+b*ln(c*x^n)))^2,x)
[Out] int(x*tan(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int x\tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx=\int x\tan\left((b\log\left(cx^{n}\right)+a)d\right)^{2}\,dx$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral(x*tan(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int x\tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx=\int x\tan^{2}\left(ad+bd\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*tan(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral(x*tan(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x\tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx=\int x\tan\left((b\log\left(cx^{n}\right)+a)d\right)^{2}\,dx$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] -1/2*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^2*cos(2*b*d*l
og(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*
x^2*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^2 + 2*(b*d*n*cos(2*b*d*log(c))
- 2*sin(2*b*d*log(c)))*x^2*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*n*sin(2*b*d
*log(c)) + 2*cos(2*b*d*log(c)))*x^2*sin(2*b*d*log(x^n) + 2*a*d) + 8*(2*b^2*
d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2
*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d
*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2
 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*
```

```
d*log(x^n) + 2*a*d)^2)*integrate((x*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*l
og(c)) + x*cos(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n^2*co
s(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c
))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(c))^2
 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^
2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n)
 + 2*a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) -
2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d*log(
c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos
(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2
 + b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x\tan^2(d(a+b\log(cx^n)))\,dx=\text{Timed out}$$

```
[In] integrate(x*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x\tan^2(d(a+b\log(cx^n)))\,dx=\int x\tan(d\,(a+b\,\ln(c\,x^n)))^2\,dx$$

```
[In] int(x*tan(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x*tan(d*(a + b*log(c*x^n)))^2, x)
```

3.168 $\int \tan^2(d(a+b\log(cx^n)))\,dx$

Optimal result 1995
Rubi [A] (verified) 1995
Mathematica [A] (verified) 1997
Maple [F] 1998
Fricas [F] 1998
Sympy [F] 1998
Maxima [F] 1998
Giac [F(-1)] 1999
Mupad [F(-1)] 1999

Optimal result

Integrand size = 15, antiderivative size = 154

$$\int \tan^2(d(a+b\log(cx^n)))\,dx = \frac{(i-bdn)x}{bdn}+\frac{ix\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] (I-b*d*n)*x/b/d/n+I*x*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1+exp(2*I*a
*d)*(c*x^n)^(2*I*b*d))-2*I*x*hypergeom([1, -1/2*I/b/d/n],[1-1/2*I/b/d/n],-e
xp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.19 (sec) , antiderivative size = 154, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.333$, Rules used = {4589, 4591, 516, 470, 371}

$$\int \tan^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}(cx^n)^{2ibd}\right)}+\frac{x(-bdn+i)}{bdn}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((I - b*d*n)*x)/(b*d*n) + (I*x*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*
d*n*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x*Hypergeometric2F1[1
, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))
])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4589

```
Int[Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Tan[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\tan^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2}\,dx, x, cx^n\right)}{n}$$

$$= \frac{ix\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} + \frac{\left(ie^{-2iad}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(-\frac{2e^{2iad}(1-ibdn)}{n}+\frac{2e^{4iad}(1+ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bdn}$$

$$= -\left(\left(1-\frac{i}{bdn}\right)x\right) + \frac{ix\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(2ix(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bdn^2}$$

$$= -\left(\left(1-\frac{i}{bdn}\right)x\right) + \frac{ix\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 8.14 (sec) , antiderivative size = 185, normalized size of antiderivative = 1.20

$$\int \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx$$
$$= \frac{e^{2id(a+b\log(cx^n))}x\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bdn},2-\frac{i}{2bdn},-e^{2id(a+b\log(cx^n))}\right)-(-i+2bdn)x\left(bdn+i\,\text{Hyp}\right.}{bdn(-i+2bdn)}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] (E^((2*I)*d*(a + b*Log[c*x^n]))*x*Hypergeometric2F1[1, 1 - (I/2)/(b*d*n), 2
 - (I/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] - (-I + 2*b*d*n)*x*(b*d*
n + I*Hypergeometric2F1[1, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), -E^((2*I)*d
*(a + b*Log[c*x^n]))] - Tan[d*(a + b*Log[c*x^n])]))/(b*d*n*(-I + 2*b*d*n))
```

Maple [F]

$$\int \tan\left(d(a+b\ln\left(c\,x^{n}\right))\right)^{2}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))^2,x)
[Out] int(tan(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int \tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan\left((b\log\left(cx^{n}\right)+a)d\right)^{2}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral(tan(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int \tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral(tan(d*(a + b*log(c*x**n)))**2, x)
```

Maxima [F]

$$\int \tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan\left((b\log\left(cx^{n}\right)+a)d\right)^{2}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] -((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*cos(2*b*d*log(x^n
) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*sin(
2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x + 2*(b*d*n*cos(2*b*d*log(c)) - sin(2*b*
d*log(c)))*x*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*n*sin(2*b*d*log(c)) + cos
(2*b*d*log(c)))*x*sin(2*b*d*log(x^n) + 2*a*d) + 2*(2*b^2*d^2*n^2*cos(2*b*d*
log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2
*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d
^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*
b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d
```

```
)^2)*integrate((cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) + cos(2*b*d*l
og(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*
b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n)
+ 2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*l
og(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*b*d*log(c))^2
+ b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2), x))/(2*b
*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log(
c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*
log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d
*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int \tan\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^2\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^2,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^2, x)
```

3.169 $\int \frac{\tan^2(d(a+b\log(cx^n)))}{x} dx$

Optimal result 2000
Rubi [A] (verified) 2000
Mathematica [A] (verified) 2001
Maple [A] (verified) 2001
Fricas [B] (verification not implemented) 2002
Sympy [F] 2002
Maxima [B] (verification not implemented) 2002
Giac [F(-1)] 2003
Mupad [B] (verification not implemented) 2003

Optimal result

Integrand size = 19, antiderivative size = 29

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x} dx = -\log(x) + \frac{\tan(ad+bd\log(cx^n))}{bdn}$$

```
[Out] -ln(x)+tan(a*d+b*d*ln(c*x^n))/b/d/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.105$, Rules used = {3554, 8}

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x} dx = \frac{\tan(ad+bd\log(cx^n))}{bdn} - \log(x)$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]^2/x,x]
```

```
[Out] -Log[x] + Tan[a*d + b*d*Log[c*x^n]]/(b*d*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \tan^2(d(a+bx))\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{\tan(ad+bd\log(cx^n))}{bdn} - \frac{\text{Subst}\left(\int 1\,dx, x, \log(cx^n)\right)}{n}\\ &= -\log(x) + \frac{\tan(ad+bd\log(cx^n))}{bdn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.76

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = -\frac{\arctan(\tan(ad+bd\log(cx^n)))}{bdn} + \frac{\tan(ad+bd\log(cx^n))}{bdn}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]^2/x,x]
[Out] -(ArcTan[Tan[a*d + b*d*Log[c*x^n]]]/(b*d*n)) + Tan[a*d + b*d*Log[c*x^n]]/(b
*d*n)
```

Maple [A] (verified)

Time = 0.18 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.21

method	result
parallelrisch	$\frac{-bd\ln(cx^n)+\tan(d(a+b\ln(cx^n)))}{bdn}$
derivativedivides	$\frac{\tan(d(a+b\ln(cx^n)))-\arctan(\tan(d(a+b\ln(cx^n))))}{nbd}$
default	$\frac{\tan(d(a+b\ln(cx^n)))-\arctan(\tan(d(a+b\ln(cx^n))))}{nbd}$
risch	$-\ln(x)+\frac{2i}{dbn\left((x^n)^{2ibd}c^{2ibd}e^{d\left(-b\pi\,\text{csgn}(ix^n)\,\text{csgn}(icx^n)^2+b\pi\,\text{csgn}(ix^n)\,\text{csgn}(icx^n)\,\text{csgn}(ic)+b\pi\,\text{csgn}(icx^n)^3-b\pi\,\text{csgn}(ic\right.}\right.}$

```
[In] int(tan(d*(a+b*ln(c*x^n)))^2/x,x,method=_RETURNVERBOSE)
[Out] (-b*d*ln(c*x^n)+tan(d*(a+b*ln(c*x^n))))/b/d/n
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 85 vs. 2(29) = 58.

Time = 0.25 (sec) , antiderivative size = 85, normalized size of antiderivative = 2.93

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = -\frac{bdn\cos(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)\log(x)+bdn\log(x)-\sin(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)}{bdn\cos(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)+bdn}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x,x, algorithm="fricas")
```

```
[Out] -(b*d*n*cos(2*b*d*n*log(x) + 2*b*d*log(c) + 2*a*d)*log(x) + b*d*n*log(x) -
sin(2*b*d*n*log(x) + 2*b*d*log(c) + 2*a*d))/(b*d*n*cos(2*b*d*n*log(x) + 2*b
*d*log(c) + 2*a*d) + b*d*n)
```

Sympy [F]

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = \int \frac{\tan^2(ad+bd\log(cx^n))}{x}\,dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))**2/x,x)
```

```
[Out] Integral(tan(a*d + b*d*log(c*x**n))**2/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 320 vs. 2(29) = 58.

Time = 0.22 (sec) , antiderivative size = 320, normalized size of antiderivative = 11.03

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = -\frac{(bd\cos(2\,bd\log(c))^2+bd\sin(2\,bd\log(c))^2)n\cos(2\,bd\log(x^n)+2\,ad)^2\log(x)+(bd\cos(2\,bd\log(c))^2+}{2\,bdn\cos(2\,bd\log(c))\cos(2\,bd\log(x^n)+2\,ad)-2\,bdn\sin(2\,bd\log}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x,x, algorithm="maxima")
```

```
[Out] -((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n)
+ 2*a*d)^2*log(x) + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*l
og(x)*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*log(x) + 2*(b*d*n*cos(2*b*d*log
(c))*log(x) - sin(2*b*d*log(c)))*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*n*log
(x)*sin(2*b*d*log(c)) + cos(2*b*d*log(c)))*sin(2*b*d*log(x^n) + 2*a*d))/(2*
b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log
(c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d
*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*
d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 31.48 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.34

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x}\,dx = -\ln(x) + \frac{2\mathrm{i}}{b\,d\,n\,\left(\mathrm{e}^{a\,d\,2\mathrm{i}}\,(c\,x^n)^{b\,d\,2\mathrm{i}}+1\right)}$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^2/x,x)
[Out] 2i/(b*d*n*(exp(a*d*2i)*(c*x^n)^(b*d*2i) + 1)) - log(x)
```

3.170 $\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2} dx$

Optimal result . . . 2004
Rubi [A] (verified) . . . 2004
Mathematica [A] (verified) . . . 2006
Maple [F] . . . 2007
Fricas [F] . . . 2007
Sympy [F] . . . 2007
Maxima [F] . . . 2007
Giac [F(-1)] . . . 2008
Mupad [F(-1)] . . . 2008

Optimal result

Integrand size = 19, antiderivative size = 157

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2} dx = \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx}$$

```
[Out] (1+I/b/d/n)/x+I*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x/(1+exp(2*I*a*d)*
(c*x^n)^(2*I*b*d))-2*I*hypergeom([1, 1/2*I/b/d/n],[1+1/2*I/b/d/n],-exp(2*I*
a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x
```

Rubi [A] (verified)

Time = 0.21 (sec) , antiderivative size = 157, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.263, Rules used = {4593, 4591, 516, 470, 371}

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2} dx = -\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{1+\frac{i}{bdn}}{x}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]^2/x^2,x]
```

```
[Out] (1 + I/(b*d*n))/x + (I*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*d*n*x*(1
 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*Hypergeometric2F1[1, (I/2)/
```

```
(b*d*n), 1 + (I/2)/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(b*d*n*x
)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\tan^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{nx}$$

$$= \frac{(cx^n)^{\frac{1}{n}} \text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2} dx, x, cx^n\right)}{nx}$$

$$= \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(ie^{-2iad}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(\frac{2e^{2iad}(1+ibdn)}{n}-\frac{2e^{4iad}(1-ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}} dx, x, cx^n\right)}{2bdnx}$$

$$= \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(2i(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}}{1+e^{2iad}x^{2ibd}} dx, x, cx^n\right)}{bdn^2x}$$

$$= \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i\,\text{Hypergeometric2F1}\left(1, \frac{i}{2bdn}, 1+\frac{i}{2bdn}, -e^{2iad}(cx^n)^{2ibd}\right)}{bdnx}$$

Mathematica [A] (verified)

Time = 3.38 (sec) , antiderivative size = 184, normalized size of antiderivative = 1.17

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2} dx$$
$$= \frac{-e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1, 1+\frac{i}{2bdn}, 2+\frac{i}{2bdn}, -e^{2id(a+b\log(cx^n))}\right) + (i+2bdn)\left(bdn - i\,\text{Hyperg}\right.}{bdn(i+2bdn)x}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]^2/x^2,x]
```

```
[Out] (-(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + (I/2)/(b*d*n), 2
 + (I/2)/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]) + (I + 2*b*d*n)*(b*d*n
- I*Hypergeometric2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(b*d*n), -E^((2*I)*d*(a +
 b*Log[c*x^n]))] + Tan[d*(a + b*Log[c*x^n])]))/(b*d*n*(I + 2*b*d*n)*x)
```

Maple [F]

$$\int \frac{\tan\left(d(a + b\ln\left(c\,x^n\right))\right)^2}{x^2}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))^2/x^2,x)
[Out] int(tan(d*(a+b*ln(c*x^n)))^2/x^2,x)
```

Fricas [F]

$$\int \frac{\tan^2\left(d(a + b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\tan\left((b\log\left(cx^n\right) + a)d\right)^2}{x^2}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="fricas")
[Out] integral(tan(b*d*log(c*x^n) + a*d)^2/x^2, x)
```

Sympy [F]

$$\int \frac{\tan^2\left(d(a + b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\tan^2\left(ad + bd\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))**2/x**2,x)
[Out] Integral(tan(a*d + b*d*log(c*x**n))**2/x**2, x)
```

Maxima [F]

$$\int \frac{\tan^2\left(d(a + b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\tan\left((b\log\left(cx^n\right) + a)d\right)^2}{x^2}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="maxima")
[Out] ((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) +
 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d
*log(x^n) + 2*a*d)^2 + b*d*n + 2*(b*d*n*cos(2*b*d*log(c)) + sin(2*b*d*log(c
)))*cos(2*b*d*log(x^n) + 2*a*d) + 2*(2*b^2*d^2*n^2*x*cos(2*b*d*log(c))*cos(
2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x*sin(2*b*d*log(c))*sin(2*b*d*log(x
^n) + 2*a*d) + b^2*d^2*n^2*x + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2
*b*d*log(c))^2)*n^2*x*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*b*d*lo
g(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x*sin(2*b*d*log(x^n) + 2*a*d)^2)
```

```
*integrate((cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) + cos(2*b*d*log(c
))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n^2*x^2*cos(2*b*d*log(c))*cos(2*
b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x^2*sin(2*b*d*log(c))*sin(2*b*d*log(x
^n) + 2*a*d) + b^2*d^2*n^2*x^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin
(2*b*d*log(c))^2)*n^2*x^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*b*
d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*sin(2*b*d*log(x^n) + 2*a
*d)^2), x) - 2*(b*d*n*sin(2*b*d*log(c)) - cos(2*b*d*log(c)))*sin(2*b*d*log(
x^n) + 2*a*d))/(2*b*d*n*x*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2
*b*d*n*x*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*cos(2*b*d*log
(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*
cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*sin(2*b*d*log(x^n) + 2*a
*d)^2 + b*d*n*x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2}\,dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^2}\,dx = \int \frac{\tan(d\,(a+b\,\ln(c\,x^n)))^2}{x^2}\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^2/x^2,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^2/x^2, x)
```

3.171 $\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^3}\,dx$

Optimal result . . . 2009
Rubi [A] (verified) . . . 2009
Mathematica [A] (verified) . . . 2011
Maple [F] . . . 2012
Fricas [F] . . . 2012
Sympy [F] . . . 2012
Maxima [F] . . . 2012
Giac [F] . . . 2013
Mupad [F(-1)] . . . 2013

Optimal result

Integrand size = 19, antiderivative size = 156

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^3}\,dx=\frac{1+\frac{2i}{bdn}}{2x^2}+\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2}$$

```
[Out] 1/2*(1+2*I/b/d/n)/x^2+I*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x^2/(1+exp
(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*hypergeom([1, I/b/d/n],[1+I/b/d/n],-exp(2*
I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x^2
```

Rubi [A] (verified)

Time = 0.20 (sec) , antiderivative size = 156, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.263, Rules used = {4593, 4591, 516, 470, 371}

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^3}\,dx=-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2}+\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}+\frac{1+\frac{2i}{bdn}}{2x^2}$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]^2/x^3,x]
```

```
[Out] (1 + (2*I)/(b*d*n))/(2*x^2) + (I*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(
b*d*n*x^2*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*Hypergeometric2
```

```
F1[1, I/(b*d*n), 1 + I/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(b*d
*n*x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\tan^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{nx^2}$$

$$= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^2}{\left(1+e^{2iad}x^{2ibd}\right)^2}\,dx, x, cx^n\right)}{nx^2}$$

$$= \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} + \frac{\left(ie^{-2iad}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(\frac{2e^{2iad}(2+ibdn)}{n}-\frac{2e^{4iad}(2-ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bdnx^2}$$

$$= \frac{1+\frac{2i}{bdn}}{2x^2} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} + \frac{\left(4i(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bdn^2x^2}$$

$$= \frac{1+\frac{2i}{bdn}}{2x^2} + \frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1+e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2}$$

Mathematica [A] (verified)

Time = 3.09 (sec) , antiderivative size = 179, normalized size of antiderivative = 1.15

$$\int \frac{\tan^2\left(d(a+b\log\left(cx^n\right))\right)}{x^3}\,dx = \frac{-2e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bdn},2+\frac{i}{bdn},-e^{2id(a+b\log(cx^n))}\right)+(i+bdn)\left(bdn-2i\,\text{Hyperg}\right.}{2bdn(i+bdn)x^2}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]^2/x^3,x]
```

```
[Out] (-2*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + I/(b*d*n), 2 +
I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] + (I + b*d*n)*(b*d*n - (2*I)*Hy
pergeometric2F1[1, I/(b*d*n), 1 + I/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n])
)] + 2*Tan[d*(a + b*Log[c*x^n])]))/(2*b*d*n*(I + b*d*n)*x^2)
```

Maple [F]

$$\int \frac{\tan \left(d(a+b\ln \left(c\,x^{n}\right))\right)^{2}}{x^{3}}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))^2/x^3,x)
[Out] int(tan(d*(a+b*ln(c*x^n)))^2/x^3,x)
```

Fricas [F]

$$\int \frac{\tan^2 \left(d(a+b\log \left(cx^n\right))\right)}{x^3}\,dx = \int \frac{\tan \left((b\log \left(cx^n\right)+a)d\right)^2}{x^3}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="fricas")
[Out] integral(tan(b*d*log(c*x^n) + a*d)^2/x^3, x)
```

Sympy [F]

$$\int \frac{\tan^2 \left(d(a+b\log \left(cx^n\right))\right)}{x^3}\,dx = \int \frac{\tan^2 \left(ad+bd\log \left(cx^n\right)\right)}{x^3}\,dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))**2/x**3,x)
[Out] Integral(tan(a*d + b*d*log(c*x**n))**2/x**3, x)
```

Maxima [F]

$$\int \frac{\tan^2 \left(d(a+b\log \left(cx^n\right))\right)}{x^3}\,dx = \int \frac{\tan \left((b\log \left(cx^n\right)+a)d\right)^2}{x^3}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="maxima")
[Out] 1/2*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^
n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2
*b*d*log(x^n) + 2*a*d)^2 + b*d*n + 2*(b*d*n*cos(2*b*d*log(c)) + 2*sin(2*b*d
*log(c)))*cos(2*b*d*log(x^n) + 2*a*d) + 8*(2*b^2*d^2*n^2*x^2*cos(2*b*d*log(
c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x^2*sin(2*b*d*log(c))*sin(2
*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2*x^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b
^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^
2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*sin(2*b*d*log(
```

```
x^n) + 2*a*d)^2)*integrate((cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) +
 cos(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n^2*x^3*cos(2*b*
d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x^3*sin(2*b*d*log(c))
*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2*x^3 + (b^2*d^2*cos(2*b*d*log(c))
^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^3*cos(2*b*d*log(x^n) + 2*a*d)^2 + (
b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^3*sin(2*b*
d*log(x^n) + 2*a*d)^2), x) - 2*(b*d*n*sin(2*b*d*log(c)) - 2*cos(2*b*d*log(c
)))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b*d*n*x^2*cos(2*b*d*log(c))*cos(2*b*d*l
og(x^n) + 2*a*d) - 2*b*d*n*x^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d
) + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^2*cos(2*b*d*log
(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^
2*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^2)
```

Giac [F]

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\tan\left((b\log(cx^n)+a)d\right)^2}{x^3}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="giac")
[Out] integrate(tan((b*log(c*x^n) + a)*d)^2/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\tan^2(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\tan\left(d\left(a+b\ln\left(c\,x^n\right)\right)\right)^2}{x^3}\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^2/x^3,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^2/x^3, x)
```

3.172 $\int \frac{\tan^3(a+b\log(cx^n))}{x} dx$

Optimal result 2014
Rubi [A] (verified) 2014
Mathematica [A] (verified) 2015
Maple [A] (verified) 2015
Fricas [A] (verification not implemented) 2016
Sympy [A] (verification not implemented) 2016
Maxima [B] (verification not implemented) 2016
Giac [F(-1)] 2018
Mupad [B] (verification not implemented) 2018

Optimal result

Integrand size = 17, antiderivative size = 43

$$\int \frac{\tan^3(a+b\log(cx^n))}{x} dx = \frac{\log(\cos(a+b\log(cx^n)))}{bn} + \frac{\tan^2(a+b\log(cx^n))}{2bn}$$

```
[Out] ln(cos(a+b*ln(c*x^n)))/b/n+1/2*tan(a+b*ln(c*x^n))^2/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 43, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3554, 3556}

$$\int \frac{\tan^3(a+b\log(cx^n))}{x} dx = \frac{\tan^2(a+b\log(cx^n))}{2bn} + \frac{\log(\cos(a+b\log(cx^n)))}{bn}$$

```
[In] Int[Tan[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] Log[Cos[a + b*Log[c*x^n]]]/(b*n) + Tan[a + b*Log[c*x^n]]^2/(2*b*n)
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \tan^3(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= \frac{\tan^2\left(a+b\log\left(cx^n\right)\right)}{2bn} - \frac{\text{Subst}\left(\int \tan(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= \frac{\log\left(\cos\left(a+b\log\left(cx^n\right)\right)\right)}{bn} + \frac{\tan^2\left(a+b\log\left(cx^n\right)\right)}{2bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.16 (sec) , antiderivative size = 38, normalized size of antiderivative = 0.88

$$
\int \frac{\tan^3\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = \frac{2\log\left(\cos\left(a+b\log\left(cx^n\right)\right)\right)+\tan^2\left(a+b\log\left(cx^n\right)\right)}{2bn}
$$

```
[In] Integrate[Tan[a + b*Log[c*x^n]]^3/x,x]
[Out] (2*Log[Cos[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]^2)/(2*b*n)
```

Maple [A] (verified)

Time = 0.29 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.95

method	result
parallelrisch	$\frac{\tan(a+b\ln(c\,x^n))^2-\ln\left(1+\tan(a+b\ln(c\,x^n))^2\right)}{2bn}$
derivativedivides	$\frac{\frac{\tan(a+b\ln(c\,x^n))^2}{2}-\frac{\ln\left(1+\tan(a+b\ln(c\,x^n))^2\right)}{2}}{nb}$
default	$\frac{\frac{\tan(a+b\ln(c\,x^n))^2}{2}-\frac{\ln\left(1+\tan(a+b\ln(c\,x^n))^2\right)}{2}}{nb}$
risch	$i\ln\left(x\right)-\frac{2ia}{nb}-\frac{2i\ln(c)}{n}-\frac{2i\ln(x^n)}{n}+\frac{\pi\ \text{csgn}(ix^n)\,\text{csgn}(ic\,x^n)^2}{n}-\frac{\pi\ \text{csgn}(ix^n)\,\text{csgn}(ic\,x^n)\,\text{csgn}(ic)}{n}-\frac{\pi\ \text{csgr}}{}$

```
[In] int(tan(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)
[Out] 1/2*(tan(a+b*ln(c*x^n))^2-ln(1+tan(a+b*ln(c*x^n))^2))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 69, normalized size of antiderivative = 1.60

$$\int \frac{\tan^3(a+b\log(cx^n))}{x}\,dx = \frac{(\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1)\log\left(\frac{1}{2}\,\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+\frac{1}{2}\right)+2}{2\,(bn\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+bn)}$$

```
[In] integrate(tan(a+b*log(c*x^n))^3/x,x, algorithm="fricas")
```

```
[Out] 1/2*((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)*log(1/2*cos(2*b*n*log(x) +
2*b*log(c) + 2*a) + 1/2) + 2)/(b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b
*n)
```

Sympy [A] (verification not implemented)

Time = 0.78 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.47

$$\int \frac{\tan^3(a+b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\tan^3(a) & \text{for}\ b=0 \wedge (b=0 \vee n=0) \\ \log(x)\tan^3(a+b\log(c)) & \text{for}\ n=0 \\ -\frac{\log(\tan^2(a+b\log(cx^n))+1)}{2bn}+\frac{\tan^2(a+b\log(cx^n))}{2bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(tan(a+b*ln(c*x**n))**3/x,x)
```

```
[Out] Piecewise((log(x)*tan(a)**3, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*tan
(a + b*log(c))**3, Eq(n, 0)), (-log(tan(a + b*log(c*x**n))**2 + 1)/(2*b*n)
+ tan(a + b*log(c*x**n))**2/(2*b*n), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1242 vs. 2(41) = 82.

Time = 0.24 (sec) , antiderivative size = 1242, normalized size of antiderivative = 28.88

$$\int \frac{\tan^3(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(tan(a+b*log(c*x^n))^3/x,x, algorithm="maxima")
```

```
[Out] 1/2*(8*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 +
8*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 + 4*((c
os(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*l
og(x^n) + 2*a) + (cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b
*log(c)))*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 4*cos(2*b*log(
c))*cos(2*b*log(x^n) + 2*a) + ((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(
4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*l
og(x^n) + 2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n)
 + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*
a)^2 + 2*(2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(
c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b
*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(4*b*log(c)))*cos(4*
b*log(x^n) + 4*a) + 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*(2*(cos(2
*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x
^n) + 2*a) - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*l
og(c)))*sin(2*b*log(x^n) + 2*a) + sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a)
- 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)*log((cos(2*a)^2 + sin(2*a)
^2)*cos(2*b*log(c))^2 + (cos(2*a)^2 + sin(2*a)^2)*sin(2*b*log(c))^2 + 2*(co
s(2*b*log(c))*cos(2*a) - sin(2*b*log(c))*sin(2*a))*cos(2*b*log(x^n)) + cos(
2*b*log(x^n))^2 - 2*(cos(2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*a))*s
in(2*b*log(x^n)) + sin(2*b*log(x^n))^2) - 4*((cos(2*b*log(c))*sin(4*b*log(c
)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - (cos(4*b*lo
g(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) +
 2*a))*sin(4*b*log(x^n) + 4*a) - 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a))
/((b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 +
 4*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*log(c))^2 + b
*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(4*b*log(c))^2 + b*
sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4*a)^2 - 4*b*n*sin(2*b*log(c))*sin(
2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2
*b*log(x^n) + 2*a)^2 + b*n + 2*(b*n*cos(4*b*log(c)) + 2*(b*cos(4*b*log(c))*
cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2
*a) + 2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(
c)))*n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(2*(b*cos(2*b*l
og(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x
^n) + 2*a) + b*n*sin(4*b*log(c)) - 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b
*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^
n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^3(a + b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^3/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 32.07 (sec) , antiderivative size = 105, normalized size of antiderivative = 2.44

$$\int \frac{\tan^3(a + b\log(cx^n))}{x}\,dx = -\ln(x)\ 1\mathrm{i} - \frac{2}{b\,n\,\left(2\,\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}} + \mathrm{e}^{a\,4\mathrm{i}}\,{(c\,x^n)}^{b\,4\mathrm{i}} + 1\right)} + \frac{2}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}} + 1\right)} + \frac{\ln\left(\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}} + 1\right)}{b\,n}$$

```
[In] int(tan(a + b*log(c*x^n))^3/x,x)
[Out] 2/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1)) - 2/(b*n*(2*exp(a*2i)*(c*x^n)^(b*2i)
 + exp(a*4i)*(c*x^n)^(b*4i) + 1)) - log(x)*1i + log(exp(a*2i)*(c*x^n)^(b*2i
) + 1)/(b*n)
```

3.173 $\int \frac{\tan^4(a+b\log(cx^n))}{x}\,dx$

Optimal result . . . 2019
Rubi [A] (verified) . . . 2019
Mathematica [A] (verified) . . . 2020
Maple [A] (verified) . . . 2020
Fricas [B] (verification not implemented) . . . 2021
Sympy [A] (verification not implemented) . . . 2021
Maxima [B] (verification not implemented) . . . 2021
Giac [F(-1)] . . . 2023
Mupad [B] (verification not implemented) . . . 2023

Optimal result

Integrand size = 17, antiderivative size = 45

$$\int \frac{\tan^4(a+b\log(cx^n))}{x}\,dx=\log(x)-\frac{\tan(a+b\log(cx^n))}{bn}+\frac{\tan^3(a+b\log(cx^n))}{3bn}$$

```
[Out] ln(x)-tan(a+b*ln(c*x^n))/b/n+1/3*tan(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 45, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3554, 8}

$$\int \frac{\tan^4(a+b\log(cx^n))}{x}\,dx=\frac{\tan^3(a+b\log(cx^n))}{3bn}-\frac{\tan(a+b\log(cx^n))}{bn}+\log(x)$$

```
[In] Int[Tan[a + b*Log[c*x^n]]^4/x,x]
```

```
[Out] Log[x] - Tan[a + b*Log[c*x^n]]/(b*n) + Tan[a + b*Log[c*x^n]]^3/(3*b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \tan^4(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= \frac{\tan^3\left(a+b\log\left(cx^n\right)\right)}{3bn} - \frac{\text{Subst}\left(\int \tan^2(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\tan\left(a+b\log\left(cx^n\right)\right)}{bn} + \frac{\tan^3\left(a+b\log\left(cx^n\right)\right)}{3bn} + \frac{\text{Subst}\left(\int 1\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= \log(x) - \frac{\tan\left(a+b\log\left(cx^n\right)\right)}{bn} + \frac{\tan^3\left(a+b\log\left(cx^n\right)\right)}{3bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 62, normalized size of antiderivative = 1.38

$$
\int \frac{\tan^4\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = \frac{\arctan\left(\tan\left(a+b\log\left(cx^n\right)\right)\right)}{bn} - \frac{\tan\left(a+b\log\left(cx^n\right)\right)}{bn} + \frac{\tan^3\left(a+b\log\left(cx^n\right)\right)}{3bn}
$$

```
[In] Integrate[Tan[a + b*Log[c*x^n]]^4/x,x]
[Out] ArcTan[Tan[a + b*Log[c*x^n]]]/(b*n) - Tan[a + b*Log[c*x^n]]/(b*n) + Tan[a +
 b*Log[c*x^n]]^3/(3*b*n)
```

Maple [A] (verified)

Time = 0.42 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.98

method	result
parallelrisch	$-\frac{-3\ln(x)bn-\tan(a+b\ln(c\,x^n))^3+3\tan(a+b\ln(c\,x^n))}{3bn}$
derivativedivides	$\frac{\frac{\tan(a+b\ln(c\,x^n))^3}{3}-\tan(a+b\ln(c\,x^n))+\arctan(\tan(a+b\ln(c\,x^n)))}{nb}$
default	$\frac{\frac{\tan(a+b\ln(c\,x^n))^3}{3}-\tan(a+b\ln(c\,x^n))+\arctan(\tan(a+b\ln(c\,x^n)))}{nb}$
risch	$\ln(x)-\frac{4i\left(3c^{4ib}(x^n)^{4ib}\mathrm{e}^{-2b\pi\ \mathrm{csgn}(ix^n)\ \mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{2b\pi\ \mathrm{csgn}(ix^n)\ \mathrm{csgn}(ic\,x^n)\ \mathrm{csgn}(ic)}\mathrm{e}^{2b\pi\ \mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-2b\pi\ \mathrm{csgn}(ic\,x^n)^2}\right.}{3bn\left((x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\ \mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}}\right.}$

```
[In] int(tan(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)
[Out] -1/3*(-3*ln(x)*b*n-tan(a+b*ln(c*x^n))^3+3*tan(a+b*ln(c*x^n)))/b/n
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 140 vs. $2(43) = 86$.

Time = 0.25 (sec) , antiderivative size = 140, normalized size of antiderivative = 3.11

$$\int \frac{\tan^4(a + b\log(cx^n))}{x}\,dx$$
$$= \frac{3\,bn\cos\left(2\,bn\log\left(x\right) + 2\,b\log\left(c\right) + 2\,a\right)^2\log\left(x\right) + 6\,bn\cos\left(2\,bn\log\left(x\right) + 2\,b\log\left(c\right) + 2\,a\right)\log\left(x\right) + 3\,bn\log}{3\left(bn\cos\left(2\,bn\log\left(x\right) + 2\,b\log\left(c\right) + 2\,a\right)^2 + 2\,bn\cos\left(2\right.\right.}$$

```
[In] integrate(tan(a+b*log(c*x^n))^4/x,x, algorithm="fricas")
```

```
[Out] 1/3*(3*b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a)^2*log(x) + 6*b*n*cos(2*b*n*
log(x) + 2*b*log(c) + 2*a)*log(x) + 3*b*n*log(x) - 2*(2*cos(2*b*n*log(x) +
2*b*log(c) + 2*a) + 1)*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(b*n*cos(2*b*n
*log(x) + 2*b*log(c) + 2*a)^2 + 2*b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a)
+ b*n)
```

Sympy [A] (verification not implemented)

Time = 1.65 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.44

$$\int \frac{\tan^4(a + b\log(cx^n))}{x}\,dx = \begin{cases} \log\left(x\right)\tan^4\left(a\right) & \text{for}\ b = 0 \wedge \left(b = 0 \vee n = 0\right) \\ \log\left(x\right)\tan^4\left(a + b\log\left(c\right)\right) & \text{for}\ n = 0 \\ \frac{\log\left(cx^n\right)}{n} + \frac{\tan^3\left(a + b\log\left(cx^n\right)\right)}{3bn} - \frac{\tan\left(a + b\log\left(cx^n\right)\right)}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(tan(a+b*ln(c*x**n))**4/x,x)
```

```
[Out] Piecewise((log(x)*tan(a)**4, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*tan
(a + b*log(c))**4, Eq(n, 0)), (log(c*x**n)/n + tan(a + b*log(c*x**n))**3/(3
*b*n) - tan(a + b*log(c*x**n))/(b*n), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 2171 vs. $2(43) = 86$.

Time = 0.27 (sec) , antiderivative size = 2171, normalized size of antiderivative = 48.24

$$\int \frac{\tan^4(a + b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(tan(a+b*log(c*x^n))^4/x,x, algorithm="maxima")
```

```
[Out] 1/3*(3*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a
)^2*log(x) + 27*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x
^n) + 4*a)^2*log(x) + 27*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(
2*b*log(x^n) + 2*a)^2*log(x) + 3*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2
)*n*log(x)*sin(6*b*log(x^n) + 6*a)^2 + 27*(b*cos(4*b*log(c))^2 + b*sin(4*b*
log(c))^2)*n*log(x)*sin(4*b*log(x^n) + 4*a)^2 + 27*(b*cos(2*b*log(c))^2 + b
*sin(2*b*log(c))^2)*n*log(x)*sin(2*b*log(x^n) + 2*a)^2 + 3*b*n*log(x) + 2*(
3*b*n*cos(6*b*log(c))*log(x) + 3*(3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*
sin(6*b*log(c))*sin(4*b*log(c)))*n*log(x) - 2*cos(4*b*log(c))*sin(6*b*log(c
)) + 2*cos(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 3*(3*(b*c
os(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*log(x
) - 2*cos(2*b*log(c))*sin(6*b*log(c)) + 2*cos(6*b*log(c))*sin(2*b*log(c)))*
cos(2*b*log(x^n) + 2*a) + 3*(3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6
*b*log(c))*sin(4*b*log(c)))*n*log(x) + 2*cos(6*b*log(c))*cos(4*b*log(c)) +
2*sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 3*(3*(b*cos(2*
b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*log(x) + 2
*cos(6*b*log(c))*cos(2*b*log(c)) + 2*sin(6*b*log(c))*sin(2*b*log(c)))*sin(2
*b*log(x^n) + 2*a) - 4*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + 6*(3*b*n*
cos(4*b*log(c))*log(x) + 9*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*l
og(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a)*log(x) + 9*(b*cos(2*b*log
(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*log(x)*sin(2*b*
log(x^n) + 2*a) - 2*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 6*(3*b*n*cos
(2*b*log(c))*log(x) - 2*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(3*b*n
*log(x)*sin(6*b*log(c)) + 3*(3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6
*b*log(c))*sin(4*b*log(c)))*n*log(x) + 2*cos(6*b*log(c))*cos(4*b*log(c)) +
2*sin(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 3*(3*(b*cos(2*
b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*log(x) + 2
*cos(6*b*log(c))*cos(2*b*log(c)) + 2*sin(6*b*log(c))*sin(2*b*log(c)))*cos(2
*b*log(x^n) + 2*a) - 3*(3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*lo
g(c))*sin(4*b*log(c)))*n*log(x) - 2*cos(4*b*log(c))*sin(6*b*log(c)) + 2*cos
(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 3*(3*(b*cos(6*b*log
(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*log(x) - 2*cos(
2*b*log(c))*sin(6*b*log(c)) + 2*cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*lo
g(x^n) + 2*a) + 4*cos(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 6*(9*(b*cos(2*
b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*lo
g(x^n) + 2*a)*log(x) + 3*b*n*log(x)*sin(4*b*log(c)) - 9*(b*cos(4*b*log(c))*
cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*log(x)*sin(2*b*log(x
^n) + 2*a) + 2*cos(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 6*(3*b*n*log(x)*s
in(2*b*log(c)) + 2*cos(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))/((b*cos(6*b*lo
g(c))^2 + b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*l
og(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 + 6*b*n*cos(2*b
*log(c))*cos(2*b*log(x^n) + 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c
))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(6*b*log(c))^2 + b*sin(6*b*log(c)
)^2)*n*sin(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c
))^2)*n*sin(4*b*log(x^n) + 4*a)^2 - 6*b*n*sin(2*b*log(c))*sin(2*b*log(x^n)
```

```
+ 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) +
 2*a)^2 + b*n + 2*(b*n*cos(6*b*log(c)) + 3*(b*cos(6*b*log(c))*cos(4*b*log(c
)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) + 3*(b*co
s(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*
b*log(x^n) + 2*a) + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c)
)*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) + 3*(b*cos(2*b*log(c))*sin(6*b
*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*co
s(6*b*log(x^n) + 6*a) + 6*(b*n*cos(4*b*log(c)) + 3*(b*cos(4*b*log(c))*cos(2
*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) +
 3*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*
n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(3*(b*cos(4*b*log(c)
)*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) +
 4*a) + 3*(b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*lo
g(c)))*n*cos(2*b*log(x^n) + 2*a) + b*n*sin(6*b*log(c)) - 3*(b*cos(6*b*log(c
))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n)
+ 4*a) - 3*(b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*l
og(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(3*(b*cos(2*
b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*lo
g(x^n) + 2*a) + b*n*sin(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2*b*log(c))
+ b*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log
(x^n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^4(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^4/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 37.03 (sec) , antiderivative size = 183, normalized size of antiderivative = 4.07

$$\int \frac{\tan^4(a+b\log(cx^n))}{x}\,dx = \ln(x) - \frac{\frac{4i}{3bn} + \frac{e^{a\,4i}\,(c\,x^n)^{b\,4i}\,4i}{3\,b\,n}}{3\,e^{a\,2i}\,(c\,x^n)^{b\,2i} + 3\,e^{a\,4i}\,(c\,x^n)^{b\,4i} + e^{a\,6i}\,(c\,x^n)^{b\,6i} + 1} - \frac{4i}{3\,b\,n\,\left(e^{a\,2i}\,(c\,x^n)^{b\,2i} + 1\right)} - \frac{e^{a\,2i}\,(c\,x^n)^{b\,2i}\,4i}{3\,b\,n\,\left(2\,e^{a\,2i}\,(c\,x^n)^{b\,2i} + e^{a\,4i}\,(c\,x^n)^{b\,4i} + 1\right)}$$

```
[In] int(tan(a + b*log(c*x^n))^4/x,x)

[Out] log(x) - (4i/(3*b*n) + (exp(a*4i)*(c*x^n)^(b*4i)*4i)/(3*b*n))/(3*exp(a*2i)*
(c*x^n)^(b*2i) + 3*exp(a*4i)*(c*x^n)^(b*4i) + exp(a*6i)*(c*x^n)^(b*6i) + 1)
 - 4i/(3*b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1)) - (exp(a*2i)*(c*x^n)^(b*2i)*4i
)/(3*b*n*(2*exp(a*2i)*(c*x^n)^(b*2i) + exp(a*4i)*(c*x^n)^(b*4i) + 1))
```

3.174 $\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx$

Optimal result 2025
Rubi [A] (verified) 2025
Mathematica [A] (verified) 2026
Maple [A] (verified) 2026
Fricas [B] (verification not implemented) 2027
Sympy [A] (verification not implemented) 2027
Maxima [B] (verification not implemented) 2028
Giac [F(-1)] 2031
Mupad [B] (verification not implemented) 2031

Optimal result

Integrand size = 17, antiderivative size = 67

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = -\frac{\log(\cos(a+b\log(cx^n)))}{bn} - \frac{\tan^2(a+b\log(cx^n))}{2bn} + \frac{\tan^4(a+b\log(cx^n))}{4bn}$$

```
[Out] -ln(cos(a+b*ln(c*x^n)))/b/n-1/2*tan(a+b*ln(c*x^n))^2/b/n+1/4*tan(a+b*ln(c*x
^n))^4/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 67, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3554, 3556}

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = \frac{\tan^4(a+b\log(cx^n))}{4bn} - \frac{\tan^2(a+b\log(cx^n))}{2bn} - \frac{\log(\cos(a+b\log(cx^n)))}{bn}$$

```
[In] Int[Tan[a + b*Log[c*x^n]]^5/x,x]
```

```
[Out] -(Log[Cos[a + b*Log[c*x^n]]]/(b*n)) - Tan[a + b*Log[c*x^n]]^2/(2*b*n) + Tan
[a + b*Log[c*x^n]]^4/(4*b*n)
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
```

```
x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \tan^5(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= \frac{\tan^4\left(a+b\log\left(cx^n\right)\right)}{4bn} - \frac{\text{Subst}\left(\int \tan^3(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\tan^2\left(a+b\log\left(cx^n\right)\right)}{2bn} + \frac{\tan^4\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{\text{Subst}\left(\int \tan(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\log\left(\cos\left(a+b\log\left(cx^n\right)\right)\right)}{bn} - \frac{\tan^2\left(a+b\log\left(cx^n\right)\right)}{2bn} + \frac{\tan^4\left(a+b\log\left(cx^n\right)\right)}{4bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 55, normalized size of antiderivative = 0.82

$$
\int \frac{\tan^5\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = -\frac{4\log\left(\cos\left(a+b\log\left(cx^n\right)\right)\right) + 2\tan^2\left(a+b\log\left(cx^n\right)\right) - \tan^4\left(a+b\log\left(cx^n\right)\right)}{4bn}
$$

```
[In] Integrate[Tan[a + b*Log[c*x^n]]^5/x,x]
[Out] -1/4*(4*Log[Cos[a + b*Log[c*x^n]]] + 2*Tan[a + b*Log[c*x^n]]^2 - Tan[a + b*
Log[c*x^n]]^4)/(b*n)
```

Maple [A] (verified)

Time = 0.64 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.85

method	result
derivativedivides	$\frac{\frac{\tan(a+b\ln(c\,x^{n}))^{4}}{4}-\frac{\tan(a+b\ln(c\,x^{n}))^{2}}{2}+\frac{\ln\left(1+\tan(a+b\ln(c\,x^{n}))^{2}\right)}{2}}{nb}$
default	$\frac{\frac{\tan(a+b\ln(c\,x^{n}))^{4}}{4}-\frac{\tan(a+b\ln(c\,x^{n}))^{2}}{2}+\frac{\ln\left(1+\tan(a+b\ln(c\,x^{n}))^{2}\right)}{2}}{nb}$
parallelrisch	$-\frac{-\tan(a+b\ln(c\,x^{n}))^{4}+2\tan(a+b\ln(c\,x^{n}))^{2}-2\ln\left(1+\tan(a+b\ln(c\,x^{n}))^{2}\right)}{4bn}$
risch	$-i\ln(x)+\frac{2ia}{nb}+\frac{2i\ln(c)}{n}+\frac{2i\ln(x^{n})}{n}-\frac{\pi\ \mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic\,x^{n})^{2}}{n}+\frac{\pi\ \mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic\,x^{n})\,\mathrm{csgn}(ic)}{n}+\frac{\pi\ \mathrm{cs}}{}$

```
[In] int(tan(a+b*ln(c*x^n))^5/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(1/4*tan(a+b*ln(c*x^n))^4-1/2*tan(a+b*ln(c*x^n))^2+1/2*ln(1+tan(a+b*l
n(c*x^n))^2))
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 129 vs. $2(63) = 126$.

Time = 0.26 (sec) , antiderivative size = 129, normalized size of antiderivative = 1.93

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = -\frac{\left(\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)^{2}+2\,\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+1\right)\log\left(\frac{1}{2}\,\cos\left(2\,bn\log\left(x\right.\right.\right.}{2\,\left(bn\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)^{2}+2\,bn\cos\left(2\,bn\log\left(\right.\right.\right.}$$

```
[In] integrate(tan(a+b*log(c*x^n))^5/x,x, algorithm="fricas")
```

```
[Out] -1/2*((cos(2*b*n*log(x) + 2*b*log(c) + 2*a)^2 + 2*cos(2*b*n*log(x) + 2*b*lo
g(c) + 2*a) + 1)*log(1/2*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1/2) + 4*co
s(2*b*n*log(x) + 2*b*log(c) + 2*a) + 2)/(b*n*cos(2*b*n*log(x) + 2*b*log(c)
+ 2*a)^2 + 2*b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n)
```

Sympy [A] (verification not implemented)

Time = 3.92 (sec) , antiderivative size = 82, normalized size of antiderivative = 1.22

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = \begin{cases} \log\left(x\right)\tan^{5}\left(a\right) & \text{for}\: b = 0 \wedge \left(b = 0 \vee n = 0\right) \\ \log\left(x\right)\tan^{5}\left(a+b\log\left(c\right)\right) & \text{for}\: n = 0 \\ \frac{\log\left(\tan^{2}\left(a+b\log\left(cx^{n}\right)\right)+1\right)}{2bn}+\frac{\tan^{4}\left(a+b\log\left(cx^{n}\right)\right)}{4bn}-\frac{\tan^{2}\left(a+b\log\left(cx^{n}\right)\right)}{2bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(tan(a+b*ln(c*x**n))**5/x,x)
```

```
[Out] Piecewise((log(x)*tan(a)**5, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*tan
(a + b*log(c))**5, Eq(n, 0)), (log(tan(a + b*log(c*x**n))**2 + 1)/(2*b*n) +
 tan(a + b*log(c*x**n))**4/(4*b*n) - tan(a + b*log(c*x**n))**2/(2*b*n), Tru
e))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 4466 vs. $2(63) = 126$.

Time = 0.31 (sec) , antiderivative size = 4466, normalized size of antiderivative = 66.66

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(tan(a+b*log(c*x^n))^5/x,x, algorithm="maxima")
```

```
[Out] -1/2*(32*(cos(6*b*log(c))^2 + sin(6*b*log(c))^2)*cos(6*b*log(x^n) + 6*a)^2
+ 48*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 + 32
*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + 32*(co
s(6*b*log(c))^2 + sin(6*b*log(c))^2)*sin(6*b*log(x^n) + 6*a)^2 + 48*(cos(4*
b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2 + 32*(cos(2*b*lo
g(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 + 8*((cos(8*b*log(c)
)*cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a
) + (cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*cos
(4*b*log(x^n) + 4*a) + (cos(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*s
in(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + (cos(6*b*log(c))*sin(8*b*log(c))
- cos(8*b*log(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + (cos(4*b*log(c
))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*
a) + (cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*si
n(2*b*log(x^n) + 2*a))*cos(8*b*log(x^n) + 8*a) + 8*(10*(cos(6*b*log(c))*cos
(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 8
*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*cos(2*
b*log(x^n) + 2*a) + 10*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*s
in(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 8*(cos(2*b*log(c))*sin(6*b*log(c)
) - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(6*b*log(
c)))*cos(6*b*log(x^n) + 6*a) + 8*(10*(cos(4*b*log(c))*cos(2*b*log(c)) + sin
(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 10*(cos(2*b*log(c))
*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a)
 + cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 8*cos(2*b*log(c))*cos(2*b*log
(x^n) + 2*a) + ((cos(8*b*log(c))^2 + sin(8*b*log(c))^2)*cos(8*b*log(x^n) +
8*a)^2 + 16*(cos(6*b*log(c))^2 + sin(6*b*log(c))^2)*cos(6*b*log(x^n) + 6*a)
^2 + 36*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 +
 16*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + (co
s(8*b*log(c))^2 + sin(8*b*log(c))^2)*sin(8*b*log(x^n) + 8*a)^2 + 16*(cos(6*
```

b*log(c))^2 + sin(6*b*log(c))^2)*sin(6*b*log(x^n) + 6*a)^2 + 36*(cos(4*b*lo
g(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2 + 16*(cos(2*b*log(c)
)^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 + 2*(4*(cos(8*b*log(c))*
cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a)
+ 6*(cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*cos
(4*b*log(x^n) + 4*a) + 4*(cos(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))
*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 4*(cos(6*b*log(c))*sin(8*b*log(
c)) - cos(8*b*log(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 6*(cos(4*b
*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n
) + 4*a) + 4*(cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log
(c)))*sin(2*b*log(x^n) + 2*a) + cos(8*b*log(c)))*cos(8*b*log(x^n) + 8*a) +
8*(6*(cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*co
s(4*b*log(x^n) + 4*a) + 4*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c)
)*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 6*(cos(4*b*log(c))*sin(6*b*log
(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*(cos(2*
b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^
n) + 2*a) + cos(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + 12*(4*(cos(4*b*log(c
))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*
a) + 4*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*
sin(2*b*log(x^n) + 2*a) + cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 8*cos(
2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*(4*(cos(6*b*log(c))*sin(8*b*log(c))
 - cos(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + 6*(cos(4*b*lo
g(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) +
 4*a) + 4*(cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)
))*cos(2*b*log(x^n) + 2*a) - 4*(cos(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*l
og(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 6*(cos(8*b*log(c))*cos(4*
b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 4*(c
os(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*l
og(x^n) + 2*a) + sin(8*b*log(c)))*sin(8*b*log(x^n) + 8*a) - 8*(6*(cos(4*b*l
og(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n)
+ 4*a) + 4*(cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c
)))*cos(2*b*log(x^n) + 2*a) - 6*(cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*
log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 4*(cos(6*b*log(c))*cos(2
*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin
(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 12*(4*(cos(2*b*log(c))*sin(4*b*log(
c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 4*(cos(4*b
*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n
) + 2*a) + sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 8*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + 1)*log((cos(2*a)^2 + sin(2*a)^2)*cos(2*b*log(c))^2 +
 (cos(2*a)^2 + sin(2*a)^2)*sin(2*b*log(c))^2 + 2*(cos(2*b*log(c))*cos(2*a)
- sin(2*b*log(c))*sin(2*a))*cos(2*b*log(x^n)) + cos(2*b*log(x^n))^2 - 2*(co
s(2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*a))*sin(2*b*log(x^n)) + sin(
2*b*log(x^n))^2) - 8*((cos(6*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*si
n(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + (cos(4*b*log(c))*sin(8*b*log(c)) -
 cos(8*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + (cos(2*b*log(c)

)*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a
) - (cos(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*sin
(6*b*log(x^n) + 6*a) - (cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*s
in(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - (cos(8*b*log(c))*cos(2*b*log(c))
+ sin(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*sin(8*b*log(x^n
) + 8*a) - 8*(10*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b
*log(c)))*cos(4*b*log(x^n) + 4*a) + 8*(cos(2*b*log(c))*sin(6*b*log(c)) - co
s(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 10*(cos(6*b*log(c)
)*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a
) - 8*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*s
in(2*b*log(x^n) + 2*a) + sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 8*(10*(
cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*
log(x^n) + 2*a) - 10*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin
(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(4*b*log(c)))*sin(4*b*log(x^n) +
 4*a) - 8*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/((b*cos(8*b*log(c))^2 +
b*sin(8*b*log(c))^2)*n*cos(8*b*log(x^n) + 8*a)^2 + 16*(b*cos(6*b*log(c))^2
+ b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 36*(b*cos(4*b*log(c))^
2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 + 8*b*n*cos(2*b*log(c)
)*cos(2*b*log(x^n) + 2*a) + 16*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*
n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(8*b*log(c))^2 + b*sin(8*b*log(c))^2)*n
*sin(8*b*log(x^n) + 8*a)^2 + 16*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2)
*n*sin(6*b*log(x^n) + 6*a)^2 + 36*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^
2)*n*sin(4*b*log(x^n) + 4*a)^2 - 8*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2
a) + 16(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2
*a)^2 + b*n + 2*(b*n*cos(8*b*log(c)) + 4*(b*cos(8*b*log(c))*cos(6*b*log(c))
 + b*sin(8*b*log(c))*sin(6*b*log(c)))*n*cos(6*b*log(x^n) + 6*a) + 6*(b*cos(
8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*
log(x^n) + 4*a) + 4*(b*cos(8*b*log(c))*cos(2*b*log(c)) + b*sin(8*b*log(c))*
sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + 4*(b*cos(6*b*log(c))*sin(8*b*l
og(c)) - b*cos(8*b*log(c))*sin(6*b*log(c)))*n*sin(6*b*log(x^n) + 6*a) + 6*(
b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)))*n*si
n(4*b*log(x^n) + 4*a) + 4*(b*cos(2*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*lo
g(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(8*b*log(x^n) + 8*a) +
 8*(b*n*cos(6*b*log(c)) + 6*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*
log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) + 4*(b*cos(6*b*log(c))*c
os(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*
a) + 6*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c
)))*n*sin(4*b*log(x^n) + 4*a) + 4*(b*cos(2*b*log(c))*sin(6*b*log(c)) - b*co
s(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(x^n)
+ 6*a) + 12*(b*n*cos(4*b*log(c)) + 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b
*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*
log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(
x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(4*(b*cos(6*b*log(c))*sin(8*b*log(
c)) - b*cos(8*b*log(c))*sin(6*b*log(c)))*n*cos(6*b*log(x^n) + 6*a) + 6*(b*c
os(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)))*n*cos(4

```
*b*log(x^n) + 4*a) + 4*(b*cos(2*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c
))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + b*n*sin(8*b*log(c)) - 4*(b*
cos(8*b*log(c))*cos(6*b*log(c)) + b*sin(8*b*log(c))*sin(6*b*log(c)))*n*sin(
6*b*log(x^n) + 6*a) - 6*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(
c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 4*(b*cos(8*b*log(c))*cos(2
*b*log(c)) + b*sin(8*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*
sin(8*b*log(x^n) + 8*a) - 8*(6*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6
*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) + 4*(b*cos(2*b*log(c)
)*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) +
 2*a) + b*n*sin(6*b*log(c)) - 6*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(
6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 4*(b*cos(6*b*log(c
))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n)
+ 2*a))*sin(6*b*log(x^n) + 6*a) - 12*(4*(b*cos(2*b*log(c))*sin(4*b*log(c))
- b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + b*n*sin(4*
b*log(c)) - 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*
b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^5/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 32.62 (sec) , antiderivative size = 247, normalized size of antiderivative = 3.69

$$\begin{aligned}
&\int \frac{\tan^5(a+b\log(cx^n))}{x}\,dx \\
&= \ln(x)\ 1\mathrm{i} + \frac{8}{b\,n\,\left(2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}+1\right)} - \frac{4}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+1\right)} \\
&\quad + \frac{4}{b\,n\,\left(4\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+6\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}+4\,\mathrm{e}^{a\,6\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,6\mathrm{i}}+\mathrm{e}^{a\,8\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,8\mathrm{i}}+1\right)} \\
&\quad - \frac{\ln\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+1\right)}{b\,n} - \frac{8}{b\,n\,\left(3\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+3\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}+\mathrm{e}^{a\,6\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,6\mathrm{i}}+1\right)}
\end{aligned}$$

```
[In] int(tan(a + b*log(c*x^n))^5/x,x)
```

```
[Out] log(x)*1i + 8/(b*n*(2*exp(a*2i)*(c*x^n)^(b*2i) + exp(a*4i)*(c*x^n)^(b*4i) +
 1)) - 4/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1)) + 4/(b*n*(4*exp(a*2i)*(c*x^n)
^(b*2i) + 6*exp(a*4i)*(c*x^n)^(b*4i) + 4*exp(a*6i)*(c*x^n)^(b*6i) + exp(a*8
i)*(c*x^n)^(b*8i) + 1)) - log(exp(a*2i)*(c*x^n)^(b*2i) + 1)/(b*n) - 8/(b*n*
(3*exp(a*2i)*(c*x^n)^(b*2i) + 3*exp(a*4i)*(c*x^n)^(b*4i) + exp(a*6i)*(c*x^n
)^(b*6i) + 1))
```

3.175 $\int (ex)^m \tan (d(a+b\log (cx^n)))\,dx$

Optimal result 2033
Rubi [A] (verified) 2033
Mathematica [A] (verified) 2035
Maple [F] 2035
Fricas [F] 2035
Sympy [F] 2035
Maxima [F] 2036
Giac [F(-1)] 2036
Mupad [F(-1)] 2036

Optimal result

Integrand size = 19, antiderivative size = 101

$$\int (ex)^m \tan (d(a+b\log (cx^n)))\,dx = -\frac{i(ex)^{1+m}}{e(1+m)}+\frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{e(1+m)}$$

```
[Out] -I*(e*x)^(1+m)/e/(1+m)+2*I*(e*x)^(1+m)*hypergeom([1, -1/2*I*(1+m)/b/d/n],[1
-1/2*I*(1+m)/b/d/n],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/e/(1+m)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 101, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.211, Rules used = {4593, 4591, 470, 371}

$$\int (ex)^m \tan (d(a+b\log (cx^n)))\,dx = \frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,-\frac{i(m+1)}{2bdn},1-\frac{i(m+1)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{e(m+1)}-\frac{i(ex)^{m+1}}{e(m+1)}$$

```
[In] Int[(e*x)^m*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] ((-I)*(e*x)^(1 + m))/(e*(1 + m)) + ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1
, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), -(E^((2*I)*a*d)*
(c*x^n)^((2*I)*b*d))])/(e*(1 + m))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\tan(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}\\
&= \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(i-ie^{2iad}x^{2ibd}\right)}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en}\\
&= -\frac{i(ex)^{1+m}}{e(1+m)}+\frac{\left(2i(ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{1+e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en}\\
&= -\frac{i(ex)^{1+m}}{e(1+m)}+\frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2iad}\left(cx^n\right)^{2ibd}\right)}{e(1+m)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 12.54 (sec) , antiderivative size = 186, normalized size of antiderivative = 1.84

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \frac{ix(ex)^m\left(\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2id(a+b\log(cx^n))}\right)-\frac{e^{2iad}(1+m)(cx^n)^{2ibd}\text{Hypergeometric2F}}{}\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Tan[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (I*x*(e*x)^m*(Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(
1 + m))/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))] - (E^((2*I)*a*d)*(1 + m)*
(c*x^n)^((2*I)*b*d)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*I)*b*d*n))/(
b*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^(
(2*I)*b*d))])/(1 + m + (2*I)*b*d*n)))/(1 + m)
```

Maple [F]

$$\int (ex)^m \tan(d(a+b\ln(c\,x^n)))\,dx$$

```
[In] int((e*x)^m*tan(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int((e*x)^m*tan(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*tan(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan(ad+bd\log(cx^n))\,dx$$

```
[In] integrate((e*x)**m*tan(d*(a+b*ln(c*x**n))),x)
```

```
[Out] Integral((e*x)**m*tan(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate((e*x)^m*tan((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan(d(a+b\log(cx^n)))\,dx = \int \tan(d\,(a+b\,\ln(c\,x^n)))\,(e\,x)^m\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))*(e*x)^m,x)
[Out] int(tan(d*(a + b*log(c*x^n)))*(e*x)^m, x)
```

3.176 $\int (ex)^m \tan^2(d(a+b\log(cx^n)))\,dx$

Optimal result 2037
Rubi [A] (verified) 2037
Mathematica [B] (verified) 2039
Maple [F] 2040
Fricas [F] 2040
Sympy [F] 2040
Maxima [F] 2041
Giac [F(-1)] 2042
Mupad [F(-1)] 2042

Optimal result

Integrand size = 21, antiderivative size = 196

$$\int (ex)^m \tan^2(d(a+b\log(cx^n)))\,dx = \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bden}$$

```
[Out] (I*(1+m)-b*d*n)*(e*x)^(1+m)/b/d/e/(1+m)/n+I*(e*x)^(1+m)*(1-exp(2*I*a*d)*(c*
x^n)^(2*I*b*d))/b/d/e/n/(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*(e*x)^(1+m)*
hypergeom([1, -1/2*I*(1+m)/b/d/n],[1-1/2*I*(1+m)/b/d/n],-exp(2*I*a*d)*(c*x^
n)^(2*I*b*d))/b/d/e/n
```

Rubi [A] (verified)

Time = 0.24 (sec) , antiderivative size = 196, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.238$, Rules used = {4593, 4591, 516, 470, 371}

$$\int (ex)^m \tan^2(d(a+b\log(cx^n)))\,dx = -\frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,-\frac{i(m+1)}{2bdn},1-\frac{i(m+1)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bden} + \frac{i(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{(ex)^{m+1}(-bdn+i(m+1))}{bde(m+1)n}$$

```
[In] Int[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((I*(1 + m) - b*d*n)*(e*x)^(1 + m))/(b*d*e*(1 + m)*n) + (I*(e*x)^(1 + m)*(1
 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*d*e*n*(1 + E^((2*I)*a*d)*(c*x^n)^
((2*I)*b*d))) - ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m)
)/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)
)])/(b*d*e*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\tan^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}(i-ie^{2iad}x^{2ibd})^2}{(1+e^{2iad}x^{2ibd})^2}\,dx, x, cx^n\right)}{en}$$

$$= \frac{i(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{\left(ie^{-2iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(-\frac{2e^{2iad}(1+m-ibdn)}{n}+\frac{2e^{4iad}(1+m+ibdn)x^{2ibd}}{n}\right)}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bden}$$

$$= \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(2i(1+m)(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{1+e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bden^2}$$

$$= \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{bden}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 550 vs. 2(196) = 392.

Time = 16.13 (sec) , antiderivative size = 550, normalized size of antiderivative = 2.81

$$\int (ex)^m\tan^2(d(a+b\log(cx^n)))\,dx = -\frac{x(ex)^m}{1+m} + \frac{x(ex)^m\sec(d(a+b(-n\log(x)+\log(cx^n))))\sec(bdn\log(x)+d(a+b(-n\log(x)+\log(cx^n))))\sin(bdn}{bdn}$$

$$- \frac{(1+m)x^{-m}(ex)^m\sec(d(a+b(-n\log(x)+\log(cx^n))))\left(\frac{x^{1+m}\sec(d(a+b\log(cx^n)))\sin(bdn\log(x))}{1+m} - \frac{ie^{-\frac{(1+2m)(a+}{}}}{}\right.}{}$$

```
[In] Integrate[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -((x*(e*x)^m)/(1 + m)) + (x*(e*x)^m*Sec[d*(a + b*(-(n*Log[x]) + Log[c*x^n])
)]*Sec[b*d*n*Log[x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Sin[b*d*n*Log[x
]])/(b*d*n) - ((1 + m)*(e*x)^m*Sec[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*((
x^(1 + m)*Sec[d*(a + b*Log[c*x^n])]*Sin[b*d*n*Log[x]])/(1 + m) - (I*Cos[d*(
a + b*(-(n*Log[x]) + Log[c*x^n]))]*(-(E^((a + 2*a*m + b*(1 + m)*n*Log[x] +
b*(1 + 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b*n))*(1 + m + (2*I)*b*d*n)*Hyperg
eometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), -E^
((2*I)*d*(a + b*Log[c*x^n]))]) + E^((a*(1 + 2*m + (2*I)*b*d*n))/(b*n) + (1
+ m + (2*I)*b*d*n)*Log[x] + ((1 + 2*m + (2*I)*b*d*n)*(-(n*Log[x]) + Log[c*x
^n]))/n)*(1 + m)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*I)*b*d*n))/(b*d
*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n
]))] - I*E^((a + 2*a*m + b*(1 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) + Lo
g[c*x^n]))/(b*n))*(1 + m + (2*I)*b*d*n)*Tan[d*(a + b*Log[c*x^n])]))/(E^(((1
 + 2*m)*(a + b*(-(n*Log[x]) + Log[c*x^n])))/(b*n))*(1 + m)*(1 + m + (2*I)*b
*d*n))))/(b*d*n*x^m)
```

Maple [F]

$$\int \left(ex\right)^{m} \tan \left(d(a+b\ln \left(c\,x^{n}\right))\right)^{2}dx$$

```
[In] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^2,x)
```

```
[Out] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int (ex)^{m}\tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx=\int \left(ex\right)^{m}\tan\left((b\log\left(cx^{n}\right)+a)d\right)^{2}\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*tan(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int (ex)^{m}\tan^{2}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx=\int \left(ex\right)^{m}\tan^{2}\left(ad+bd\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate((e*x)**m*tan(d*(a+b*ln(c*x**n)))**2,x)
```

```
[Out] Integral((e*x)**m*tan(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int (ex)^m \tan^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \tan\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
```

```
[Out] -((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*e^m*n*x*x^m*cos(2*b*d
*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*
e^m*n*x*x^m*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*e^m*n*x*x^m + 2*(b*d*e^m*n*
cos(2*b*d*log(c)) - e^m*m*sin(2*b*d*log(c)) - e^m*sin(2*b*d*log(c)))*x*x^m*
cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*e^m*n*sin(2*b*d*log(c)) + e^m*m*cos(2*
b*d*log(c)) + e^m*cos(2*b*d*log(c)))*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) + 2*
(((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(
b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2
*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*cos(2*b*d*log(
x^n) + 2*a*d)^2 + ((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))
^2)*e^m*m^2 + 2*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)
*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n
^2*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(b^2*d^2*e^m*m^2*cos(2*b*d*log(c)) + 2
*b^2*d^2*e^m*m*cos(2*b*d*log(c)) + b^2*d^2*e^m*cos(2*b*d*log(c)))*n^2*cos(2
*b*d*log(x^n) + 2*a*d) - 2*(b^2*d^2*e^m*m^2*sin(2*b*d*log(c)) + 2*b^2*d^2*e
^m*m*sin(2*b*d*log(c)) + b^2*d^2*e^m*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x
^n) + 2*a*d) + (b^2*d^2*e^m*m^2 + 2*b^2*d^2*e^m*m + b^2*d^2*e^m)*n^2)*integ
rate((x^m*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) + x^m*cos(2*b*d*log
(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*
d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) +
2*a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log
(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(2*b*d*log(c))^2 +
b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2), x))/((b*d*
cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2 + (b*d*cos(2*b*d*log(c))^2 +
b*d*sin(2*b*d*log(c))^2)*m)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*
d*log(c))^2 + b*d*sin(2*b*d*log(c))^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(
2*b*d*log(c))^2)*m)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(b*d*m*cos(2*b*d*lo
g(c)) + b*d*cos(2*b*d*log(c)))*n*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b*d*m*sin
(2*b*d*log(c)) + b*d*sin(2*b*d*log(c)))*n*sin(2*b*d*log(x^n) + 2*a*d) + (b*
d*m + b*d)*n)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \tan^2 \left(d(a + b \log \left(cx^n\right))\right) \, dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan^2 \left(d(a + b \log \left(cx^n\right))\right) \, dx = \int \tan(d \left(a + b \ln \left(c\, x^n\right)\right))^2 \, (e\, x)^m \, dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^2*(e*x)^m,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^2*(e*x)^m, x)
```

3.177 $\int (ex)^m \tan^3(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 2043
Rubi [A] (verified) . . . 2044
Mathematica [A] (verified) . . . 2046
Maple [F] . . . 2047
Fricas [F] . . . 2047
Sympy [F] . . . 2048
Maxima [F] . . . 2048
Giac [F(-1)] . . . 2050
Mupad [F(-1)] . . . 2051

Optimal result

Integrand size = 21, antiderivative size = 351

$$\int (ex)^m \tan^3(d(a+b\log(cx^n)))\,dx = -\frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} - \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2} - \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} - \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1+e^{2iad}(cx^n)^{2ibd}\right)} + \frac{i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(1+m)n^2}$$

```
[Out] -1/2*(I*(1+m)-b*d*n)*(1+m+2*I*b*d*n)*(e*x)^(1+m)/b^2/d^2/e/(1+m)/n^2-1/2*(e
*x)^(1+m)*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^2/b/d/e/n/(1+exp(2*I*a*d)*(c*x
^n)^(2*I*b*d))^2-1/2*I*(e*x)^(1+m)*(exp(2*I*a*d)*(1+m-2*I*b*d*n)/n-exp(4*I*
a*d)*(1+m+2*I*b*d*n)*(c*x^n)^(2*I*b*d)/n)/b^2/d^2/e/exp(2*I*a*d)/n/(1+exp(2
*I*a*d)*(c*x^n)^(2*I*b*d))+I*(-2*b^2*d^2*n^2+m^2+2*m+1)*(e*x)^(1+m)*hyperge
om([1, -1/2*I*(1+m)/b/d/n],[1-1/2*I*(1+m)/b/d/n],-exp(2*I*a*d)*(c*x^n)^(2*I
*b*d))/b^2/d^2/e/(1+m)/n^2
```

Rubi [A] (verified)

Time = 0.58 (sec) , antiderivative size = 351, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.286, Rules used = {4593, 4591, 516, 608, 470, 371}

$$\int (ex)^m \tan^3(d(a+b\log(cx^n)))\,dx$$
$$=\frac{i(ex)^{m+1}\left(-2b^2d^2n^2+m^2+2m+1\right)\text{Hypergeometric2F1}\left(1,-\frac{i(m+1)}{2bdn},1-\frac{i(m+1)}{2bdn},-e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(m+1)n^2}$$
$$-\frac{ie^{-2iad}(ex)^{m+1}\left(\frac{e^{2iad}(-2ibdn+m+1)}{n}-\frac{e^{4iad}(2ibdn+m+1)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1+e^{2iad}(cx^n)^{2ibd}\right)}$$
$$-\frac{(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}-\frac{(ex)^{m+1}(-bdn+i(m+1))(2ibdn+m+1)}{2b^2d^2e(m+1)n^2}$$

```
[In] Int[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] -1/2*((I*(1 + m) - b*d*n)*(1 + m + (2*I)*b*d*n)*(e*x)^(1 + m))/(b^2*d^2*e*(
1 + m)*n^2) - ((e*x)^(1 + m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^2)/(2*
b*d*e*n*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^2) - ((I/2)*(e*x)^(1 + m)*(
(E^((2*I)*a*d)*(1 + m - (2*I)*b*d*n))/n - (E^((4*I)*a*d)*(1 + m + (2*I)*b*d
*n)*(c*x^n)^((2*I)*b*d))/n))/(b^2*d^2*e*E^((2*I)*a*d)*n*(1 + E^((2*I)*a*d)*
(c*x^n)^((2*I)*b*d))) + (I*(1 + 2*m + m^2 - 2*b^2*d^2*n^2)*(e*x)^(1 + m)*Hy
pergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n),
 -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(b^2*d^2*e*(1 + m)*n^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 608

```
Int[((g_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_.)*((e_) + (f_.)*(x_)^(n_)), x_Symbol] :> Simp[(-(b*e - a*f))*(g*x)^(
m + 1)*(a + b*x^n)^(p + 1)*((c + d*x^n)^q/(a*b*g*n*(p + 1))), x] + Dist[1/(
a*b*n*(p + 1)), Int[(g*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 1)*Simp[c*
(b*e*n*(p + 1) + (b*e - a*f)*(m + 1)) + d*(b*e*n*(p + 1) + (b*e - a*f)*(m +
 n*q + 1))*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, f, g, m, n}, x] && LtQ[
p, -1] && GtQ[q, 0] &&  !(EqQ[q, 1] && SimplerQ[b*c - a*d, b*e - a*f])
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\tan^3(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(i-ie^{2iad}x^{2ibd}\right)^3}{\left(1+e^{2iad}x^{2ibd}\right)^3}\,dx,x,cx^n\right)}{en}$$

$$= -\frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}$$

$$+\frac{\left(ie^{-2iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(i-ie^{2iad}x^{2ibd}\right)\left(-\frac{2e^{2iad}(1+m-2ibdn)}{n}+\frac{2e^{4iad}(1+m+2ibdn)x^{2ibd}}{n}\right)}{\left(1+e^{2iad}x^{2ibd}\right)^2}\right.}{4bden}$$

$$= -\frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2} - \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} - \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1+e^{2iad}(cx^n)^{2ibd}\right)}$$

$$- \frac{\left(e^{-4iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(-\frac{4e^{4iad}(1+m-2ibdn)(i(1+m)+bdn)}{n^2} + \frac{4e^{6iad}(i(1+m)-bdn)(1+m+2ibdn)}{n^2}\right.}{1+e^{2iad}x^{2ibd}}\right.}{8b^2d^2en}$$

$$= -\frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} - \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}$$

$$- \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} - \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1+e^{2iad}(cx^n)^{2ibd}\right)}$$

$$+ \frac{\left(i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{1+e^{2iad}x^{2ibd}}dx, x, cx^n\right)}{b^2d^2en^3}$$

$$= -\frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} - \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}$$

$$- \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} - \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1+e^{2iad}(cx^n)^{2ibd}\right)}$$

$$+ \frac{i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}\text{Hypergeometric2F1}\left(1, -\frac{i(1+m)}{2bdn}, 1-\frac{i(1+m)}{2bdn}, -e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(1+m)n^2}$$

Mathematica [A] (verified)

Time = 16.04 (sec) , antiderivative size = 642, normalized size of antiderivative = 1.83

$$\int (ex)^m \tan^3(d(a+b\log(cx^n)))\,dx$$

$$= \frac{x(ex)^m \sec^2(bdn\log(x) + d(a+b(-n\log(x)+\log(cx^n))))}{2bdn}$$

$$- \frac{(1+m)x(ex)^m \sec(d(a+b(-n\log(x)+\log(cx^n))))\sec(bdn\log(x)+d(a+b(-n\log(x)+\log(cx^n))))\,\text{s}}{2b^2d^2n^2}$$

$$- \frac{(-1-2m-m^2+2b^2d^2n^2)\,x^{-m}(ex)^m \sec(d(a+b(-n\log(x)+\log(cx^n))))\left(\frac{x^{1+m}\sec(d(a+b\log(cx^n)))\sin(bdn}{1+m}\right.}{}$$

$$- \frac{x(ex)^m \tan(d(a+b(-n\log(x)+\log(cx^n))))}{1+m}$$

```
[In] Integrate[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] (x*(e*x)^m*Sec[b*d*n*Log[x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]^2)/(2*b
*d*n) - ((1 + m)*x*(e*x)^m*Sec[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Sec[b*
d*n*Log[x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Sin[b*d*n*Log[x]])/(2*b^
2*d^2*n^2) - ((-1 - 2*m - m^2 + 2*b^2*d^2*n^2)*(e*x)^m*Sec[d*(a + b*(-(n*Lo
g[x]) + Log[c*x^n]))]*((x^(1 + m)*Sec[d*(a + b*Log[c*x^n])]*Sin[b*d*n*Log[x
]])/(1 + m) - (I*Cos[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*(-(E^((a + 2*a*m
 + b*(1 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b*n))*(1 +
 m + (2*I)*b*d*n)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/
2)*(1 + m))/(b*d*n), -E^((2*I)*d*(a + b*Log[c*x^n]))]) + E^((a*(1 + 2*m + (
2*I)*b*d*n))/(b*n) + (1 + m + (2*I)*b*d*n)*Log[x] + ((1 + 2*m + (2*I)*b*d*n
)*(-(n*Log[x]) + Log[c*x^n]))/n)*(1 + m)*Hypergeometric2F1[1, ((-1/2*I)*(1
+ m + (2*I)*b*d*n))/(b*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), -E^(
(2*I)*d*(a + b*Log[c*x^n]))] - I*E^((a + 2*a*m + b*(1 + m)*n*Log[x] + b*(1
+ 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b*n))*(1 + m + (2*I)*b*d*n)*Tan[d*(a +
b*Log[c*x^n])]))/(E^(((1 + 2*m)*(a + b*(-(n*Log[x]) + Log[c*x^n])))/(b*n))*
(1 + m)*(1 + m + (2*I)*b*d*n))))/(2*b^2*d^2*n^2*x^m) - (x*(e*x)^m*Tan[d*(a
+ b*(-(n*Log[x]) + Log[c*x^n]))])/(1 + m)
```

Maple [F]

$$\int (ex)^m \tan \left(d(a+b\ln \left(c\,x^n\right))\right)^3 dx$$

```
[In] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^3,x)
```

```
[Out] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^3,x)
```

Fricas [F]

$$\int (ex)^m \tan^3\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int (ex)^m \tan\left((b\log\left(cx^n\right)+a)d\right)^3\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^3,x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*tan(b*d*log(c*x^n) + a*d)^3, x)
```

Sympy [F]

$$\int (ex)^m \tan^3 (d(a + b \log (cx^n)))\, dx = \int (ex)^m \tan^3 (ad + bd \log (cx^n))\, dx$$

```
[In] integrate((e*x)**m*tan(d*(a+b*ln(c*x**n)))**3,x)
[Out] Integral((e*x)**m*tan(a*d + b*d*log(c*x**n))**3, x)
```

Maxima [F]

$$\int (ex)^m \tan^3 (d(a + b \log (cx^n)))\, dx = \int (ex)^m \tan ((b \log (cx^n) + a)d)^3\, dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^3,x, algorithm="maxima")
[Out] (4*(b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*e^m*n*x*x^m*cos(2*b*
d*log(x^n) + 2*a*d)^2 + 4*(b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^
2)*e^m*n*x*x^m*sin(2*b*d*log(x^n) + 2*a*d)^2 + (2*b*d*e^m*n*cos(2*b*d*log(c
)) - e^m*m*sin(2*b*d*log(c)) - e^m*sin(2*b*d*log(c)))*x*x^m*cos(2*b*d*log(x
^n) + 2*a*d) - (2*b*d*e^m*n*sin(2*b*d*log(c)) + e^m*m*cos(2*b*d*log(c)) + e
^m*cos(2*b*d*log(c)))*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) - (((cos(2*b*d*log(
c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m - 2*(b*d
*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b*d*sin(4*b*d*log(c))*sin(2*b*d*log(
c)))*e^m*n + (cos(2*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2
*b*d*log(c)))*e^m)*x*x^m*cos(2*b*d*log(x^n) + 2*a*d) - ((cos(4*b*d*log(c))*
cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + 2*(b*d*cos
(2*b*d*log(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(2*b*d*log(c)))
*e^m*n + (cos(4*b*d*log(c))*cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d
*log(c)))*e^m)*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) + (e^m*m*sin(4*b*d*log(c))
 + e^m*sin(4*b*d*log(c)))*x*x^m)*cos(4*b*d*log(x^n) + 4*a*d) - (2*b^6*d^6*e
^m*n^6 - (b^4*d^4*e^m*m^2 + 2*b^4*d^4*e^m*m + b^4*d^4*e^m)*n^4 + (2*(b^6*d^
6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*co
s(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4
*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*lo
g(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*cos(4*b*d*log(x^n) + 4*a*d
)^2 + 4*(2*(b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*
n^6 - ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2
+ 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^
4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*cos(2*b*
d*log(x^n) + 2*a*d)^2 + (2*(b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d
*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log
(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c)
```

```
)^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^
m)*n^4)*sin(4*b*d*log(x^n) + 4*a*d)^2 + 4*(2*(b^6*d^6*cos(2*b*d*log(c))^2 +
 b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4
*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^
4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2
*b*d*log(c))^2)*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(2*b^6*d^6*e^m*
n^6*cos(4*b*d*log(c)) - (b^4*d^4*e^m*m^2*cos(4*b*d*log(c)) + 2*b^4*d^4*e^m*
m*cos(4*b*d*log(c)) + b^4*d^4*e^m*cos(4*b*d*log(c)))*n^4 + 2*(2*(b^6*d^6*co
s(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log
(c)))*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin
(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*co
s(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4
*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*
b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d) + 2*(2*(b^6*d^6*cos(2*b*
d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*
e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d
*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*
d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*c
os(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*lo
g(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) +
 4*(2*b^6*d^6*e^m*n^6*cos(2*b*d*log(c)) - (b^4*d^4*e^m*m^2*cos(2*b*d*log(c)
) + 2*b^4*d^4*e^m*m*cos(2*b*d*log(c)) + b^4*d^4*e^m*cos(2*b*d*log(c)))*n^4)
*cos(2*b*d*log(x^n) + 2*a*d) - 2*(2*b^6*d^6*e^m*n^6*sin(4*b*d*log(c)) - (b^
4*d^4*e^m*m^2*sin(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(4*b*d*log(c)) + b^4*d
^4*e^m*sin(4*b*d*log(c)))*n^4 + 2*(2*(b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*l
og(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*c
os(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*lo
g(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*c
os(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(
4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(
2*b*d*log(x^n) + 2*a*d) - 2*(2*(b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c))
 + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(4*b
*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))
*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b
*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*
log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*
log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d) - 4*(2*b^6*d^6*e^m*n^6*sin(2
*b*d*log(c)) - (b^4*d^4*e^m*m^2*sin(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(2*b
*d*log(c)) + b^4*d^4*e^m*sin(2*b*d*log(c)))*n^4)*sin(2*b*d*log(x^n) + 2*a*d
))*integrate((x^m*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) + x^m*cos(2
*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b^4*d^4*n^4*cos(2*b*d*log(c))*
cos(2*b*d*log(x^n) + 2*a*d) - 2*b^4*d^4*n^4*sin(2*b*d*log(c))*sin(2*b*d*log
(x^n) + 2*a*d) + b^4*d^4*n^4 + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2
*b*d*log(c))^2)*n^4*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^4*d^4*cos(2*b*d*log(
c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*n^4*sin(2*b*d*log(x^n) + 2*a*d)^2), x)
```

```
 - (((cos(4*b*d*log(c))*cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d*log
(c)))*e^m*m + 2*(b*d*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*lo
g(c))*sin(2*b*d*log(c)))*e^m*n + (cos(4*b*d*log(c))*cos(2*b*d*log(c)) + sin
(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*cos(2*b*d*log(x^n) + 2*a*d) +
((cos(2*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2*b*d*log(c))
)*e^m*m - 2*(b*d*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b*d*sin(4*b*d*log(c)
)*sin(2*b*d*log(c)))*e^m*n + (cos(2*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b
*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) + (e^m
*m*cos(4*b*d*log(c)) + e^m*cos(4*b*d*log(c)))*x*x^m)*sin(4*b*d*log(x^n) + 4
*a*d))/(4*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 4*b^2
*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + b^2*d^2*n^2 + (b^2
*d^2*cos(4*b*d*log(c))^2 + b^2*d^2*sin(4*b*d*log(c))^2)*n^2*cos(4*b*d*log(x
^n) + 4*a*d)^2 + 4*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))
^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b^2*d^2*cos(4*b*d*log(c))^2 + b^2*
d^2*sin(4*b*d*log(c))^2)*n^2*sin(4*b*d*log(x^n) + 4*a*d)^2 + 4*(b^2*d^2*cos
(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*
a*d)^2 + 2*(b^2*d^2*n^2*cos(4*b*d*log(c)) + 2*(b^2*d^2*cos(4*b*d*log(c))*co
s(2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*n^2*cos(2*b*
d*log(x^n) + 2*a*d) + 2*(b^2*d^2*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^2*
d^2*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d))*c
os(4*b*d*log(x^n) + 4*a*d) - 2*(b^2*d^2*n^2*sin(4*b*d*log(c)) + 2*(b^2*d^2*
cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^2*d^2*cos(4*b*d*log(c))*sin(2*b*d*l
og(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b^2*d^2*cos(4*b*d*log(c))*cos(
2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*n^2*sin(2*b*d*
log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d))
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \tan^3 \left(d(a+b\log \left(cx^n\right))\right)\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^3,x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [**F(-1)**]

Timed out.

$$\int (ex)^m \tan^3(d(a+b\log(cx^n)))\,dx = \int \tan(d\,(a+b\,\ln(c\,x^n)))^3\,(e\,x)^m\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^3*(e*x)^m,x)
```

```
[Out] int(tan(d*(a + b*log(c*x^n)))^3*(e*x)^m, x)
```

3.178 $\int \tan^p(d(a+b\log(cx^n)))\,dx$

Optimal result 2052
Rubi [A] (verified) 2052
Mathematica [B] (warning: unable to verify) 2054
Maple [F] 2055
Fricas [F] 2055
Sympy [F] 2055
Maxima [F] 2055
Giac [F(-1)] 2056
Mupad [F(-1)] 2056

Optimal result

Integrand size = 15, antiderivative size = 190

$$\int \tan^p(d(a+b\log(cx^n)))\,dx = x\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \operatorname{AppellF1}\left(-\frac{i}{2bdn},-p,p,1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] x*(I*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d)))
^p*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*AppellF1(-1/2*I/b/d/n,-p,p,1-1/2*I/
b/d/n,exp(2*I*a*d)*(c*x^n)^(2*I*b*d),-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/((1-e
xp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.19 (sec) , antiderivative size = 190, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.333$, Rules used = {4589, 4591, 1986, 525, 524}

$$\int \tan^p(d(a+b\log(cx^n)))\,dx = x\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \operatorname{AppellF1}\left(-\frac{i}{2bdn},-p,p,1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[Tan[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*((I*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(1 + E^((2*I)*a*d)*(c*x^n)^
((2*I)*b*d)))^p*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*AppellF1[(-1/2*I)
/(b*d*n), -p, p, 1 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d), -(E^
((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^
p
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4589

```
Int[Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Tan[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\tan^p(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right) \text{Subst}\left(\int x^{-1+\frac{1}{n}} \left(\frac{i-ie^{2iad}x^{2ibd}}{1+e^{2iad}x^{2ibd}}\right)^p dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n} \left(i - ie^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i-ie^{2iad}(cx^n)^{2ibd}}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1 + e^{2iad}(cx^n)^{2ibd}\right)^p\right) \text{Subst}\left(\int x^{-1+\frac{1}{n}} (i - ie\right.}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n} \left(1 - e^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i-ie^{2iad}(cx^n)^{2ibd}}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1 + e^{2iad}(cx^n)^{2ibd}\right)^p\right) \text{Subst}\left(\int x^{-1+\frac{1}{n}} (1 - e\right.}{n}$$

$$= x\left(1 - e^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i\left(1 - e^{2iad}(cx^n)^{2ibd}\right)}{1 + e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1 + e^{2iad}(cx^n)^{2ibd}\right)^p \text{AppellF1}\left(-\frac{i}{2bdn}, -p, p, 1 - \frac{i}{2bdn}, e^{2iad}(cx^n)^{2ibd}, -e^{2iad}(cx^n)^{2ibd}\right)$$

Mathematica [B] (warning: unable to verify)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 458 vs. $2(190) = 380$.

Time = 1.06 (sec) , antiderivative size = 458, normalized size of antiderivative = 2.41

$$\int \tan^p (d(a + b\log(cx^n)))\, dx$$

$$= \frac{(-i + 2bdn)x\left(-\frac{i\left(-1+e^{2i\cdots}\right.}{1+e^{2ia\cdots}}\right.}{-2bde^{2iad}np(cx^n)^{2ibd} \text{AppellF1}\left(1 - \frac{i}{2bdn}, 1 - p, p, 2 - \frac{i}{2bdn}, e^{2iad}(cx^n)^{2ibd}, -e^{2iad}(cx^n)^{2ibd}\right) - 2bde^{2iad}np(\cdots}$$

```
[In] Integrate[Tan[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((-I + 2*b*d*n)*x*(((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(1 + E^(
(2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*AppellF1[(-1/2*I)/(b*d*n), -p, p, 1 - (I
/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2
*I)*b*d))])/(-2*b*d*E^((2*I)*a*d)*n*p*(c*x^n)^((2*I)*b*d)*AppellF1[1 - (I/2
)/(b*d*n), 1 - p, p, 2 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d),
-(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))] - 2*b*d*E^((2*I)*a*d)*n*p*(c*x^n)^((2
*I)*b*d)*AppellF1[1 - (I/2)/(b*d*n), -p, 1 + p, 2 - (I/2)/(b*d*n), E^((2*I)
*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))] + (-I + 2*
b*d*n)*AppellF1[(-1/2*I)/(b*d*n), -p, p, 1 - (I/2)/(b*d*n), E^((2*I)*a*d)*(
c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])
```

Maple [F]

$$\int \tan\left(d(a+b\ln\left(c\,x^{n}\right))\right)^{p}dx$$

```
[In] int(tan(d*(a+b*ln(c*x^n)))^p,x)
[Out] int(tan(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int \tan^{p}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan\left((b\log\left(cx^{n}\right)+a)d\right)^{p}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral(tan(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int \tan^{p}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan^{p}\left(d(a+b\log\left(cx^{n}\right))\right)dx$$

```
[In] integrate(tan(d*(a+b*ln(c*x**n)))**p,x)
[Out] Integral(tan(d*(a + b*log(c*x**n)))**p, x)
```

Maxima [F]

$$\int \tan^{p}\left(d(a+b\log\left(cx^{n}\right))\right)\,dx = \int \tan\left((b\log\left(cx^{n}\right)+a)d\right)^{p}\,dx$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate(tan((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F(-1)]

Timed out.

$$\int \tan^p (d(a+b\log (cx^n)))\ dx = \text{Timed out}$$

```
[In] integrate(tan(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \tan^p (d(a+b\log (cx^n)))\ dx = \int \tan(d\,(a+b\,\ln (c\,x^n)))^p\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^p,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^p, x)
```

3.179 $\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 2057
Rubi [A] (verified) . . . 2057
Mathematica [A] (verified) . . . 2059
Maple [F] . . . 2059
Fricas [F] . . . 2060
Sympy [F] . . . 2060
Maxima [F] . . . 2060
Giac [F(-1)] . . . 2060
Mupad [F(-1)] . . . 2061

Optimal result

Integrand size = 21, antiderivative size = 210

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \operatorname{AppellF1}\left(-\frac{i(1+m)}{2bdn},-p,p,1-\frac{i}{}\right.}{e(1+m)}$$

```
[Out] (e*x)^(1+m)*(I*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/(1+exp(2*I*a*d)*(c*x^n)^(
2*I*b*d)))^p*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*AppellF1(-1/2*I*(1+m)/b/d
/n,-p,p,1-1/2*I*(1+m)/b/d/n,exp(2*I*a*d)*(c*x^n)^(2*I*b*d),-exp(2*I*a*d)*(c
*x^n)^(2*I*b*d))/e/(1+m)/((1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.23 (sec) , antiderivative size = 210, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.238, Rules used = {4593, 4591, 1986, 525, 524}

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \operatorname{AppellF1}\left(-\frac{i(m+1)}{2bdn},-p,p,1-\frac{i}{}\right.}{e(m+1)}$$

```
[In] Int[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*((I*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(1 + E^((2*I)*a
*d)*(c*x^n)^((2*I)*b*d)))^p*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*Appel
```

```
lF1[((-1/2*I)*(1 + m))/(b*d*n), -p, p, 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I
)*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(e*(1 +
m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p)
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4591

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Int[(e*x)^m*((I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 + E^(2*I*a*d)*x^(2*I*b*d
)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4593

```
Int[((e_.)*(x_))^(m_.)*Tan[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Tan[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\,(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\tan^p(d(a+b\log(x)))\,dx, x, cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}\,(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\left(\frac{i-ie^{2iad}x^{2ibd}}{1+e^{2iad}x^{2ibd}}\right)^p dx, x, cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m} (cx^n)^{-\frac{1+m}{n}} \left(i - ie^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i-ie^{2iad}(cx^n)^{2ibd}}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1+e^{2iad}(cx^n)^{2ibd}\right)^p\right) \text{Subst}\left(\int x^{-1}\right.}{en}$$

$$= \frac{\left((ex)^{1+m} (cx^n)^{-\frac{1+m}{n}} \left(1 - e^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i-ie^{2iad}(cx^n)^{2ibd}}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1+e^{2iad}(cx^n)^{2ibd}\right)^p\right) \text{Subst}\left(\int x^{-1}\right.}{en}$$

$$= \frac{(ex)^{1+m} \left(1 - e^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(\frac{i\left(1-e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2bdn}, -p,\right.}{e(1+m)}$$

Mathematica [A] (verified)

Time = 1.15 (sec) , antiderivative size = 205, normalized size of antiderivative = 0.98

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx$$

$$= \frac{x(ex)^m \left(1 - e^{2iad}(cx^n)^{2ibd}\right)^{-p} \left(-\frac{i\left(-1+e^{2iad}(cx^n)^{2ibd}\right)}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p \left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2bdn}, -p, p, 1-\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Tan[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(e*x)^m*(((-I)*(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(1 + E^((2*I)*a
*d)*(c*x^n)^((2*I)*b*d)))^p*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*Appel
lF1[((-1/2*I)*(1 + m))/(b*d*n), -p, p, 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I
)*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/((1 + m)
*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p)
```

Maple [F]

$$\int (ex)^m \tan(d(a+b\ln(c\,x^n)))^p dx$$

```
[In] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^p,x)
```

```
[Out] int((e*x)^m*tan(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan((b\log(cx^n)+a)d)^p\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*tan(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan^p(ad+bd\log(cx^n))\,dx$$

```
[In] integrate((e*x)**m*tan(d*(a+b*ln(c*x**n)))**p,x)
[Out] Integral((e*x)**m*tan(a*d + b*d*log(c*x**n))**p, x)
```

Maxima [F]

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \tan((b\log(cx^n)+a)d)^p\,dx$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*tan((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*tan(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \tan^p(d(a+b\log(cx^n)))\,dx=\int \tan(d\,(a+b\,\ln(c\,x^n)))^p\,(e\,x)^m\,dx$$

```
[In] int(tan(d*(a + b*log(c*x^n)))^p*(e*x)^m,x)
[Out] int(tan(d*(a + b*log(c*x^n)))^p*(e*x)^m, x)
```

3.180 $\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx$

Optimal result . . . 2062
Rubi [A] (verified) . . . 2063
Mathematica [A] (verified) . . . 2066
Maple [A] (verified) . . . 2066
Fricas [C] (verification not implemented) . . . 2067
Sympy [F(-1)] . . . 2067
Maxima [F] . . . 2068
Giac [F(-1)] . . . 2068
Mupad [B] (verification not implemented) . . . 2068

Optimal result

Integrand size = 19, antiderivative size = 201

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1-2^(1/2)*tan(a+b*ln(c*
x^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)+1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)+2/3*tan(a+b*ln(c*x^n))^(3/2)/b/n
```

Rubi [A] (verified)

Time = 0.19 (sec) , antiderivative size = 201, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}} = 0.474$, Rules used = {3554, 3557, 335, 303, 1176, 631, 210, 1179, 642}

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} + \frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} - \frac{\log\left(\tan(a+b\log(cx^n))-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{\log\left(\tan(a+b\log(cx^n))+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[Tan[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - Log[1 - Sqrt[2]*Sqrt[T
an[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 + Sq
rt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
+ (2*Tan[a + b*Log[c*x^n]]^(3/2))/(3*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \tan^{\frac{5}{2}}(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$=\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}-\frac{\text{Subst}\left(\int\sqrt{\tan(a+bx)}\,dx,x,\log(cx^n)\right)}{n}$$

$$=\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}-\frac{\text{Subst}\left(\int\frac{\sqrt{x}}{1+x^2}\,dx,x,\tan(a+b\log(cx^n))\right)}{bn}$$

$$=\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}-\frac{2\text{Subst}\left(\int\frac{x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$=\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}+\frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}-\frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$=\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}-\frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn}-\frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn}-\frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}-\frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$=-\frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}+\frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}+\frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}-\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}+\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$
= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}
- \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}
+ \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}
+ \frac{2\tan^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}
$$

Mathematica [A] (verified)

Time = 0.34 (sec) , antiderivative size = 121, normalized size of antiderivative = 0.60

$$
\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx
= \frac{-3\arctan\left(\sqrt[4]{-\tan^2(a+b\log(cx^n))}\right)\sqrt[4]{-\tan(a+b\log(cx^n))}+3\operatorname{arctanh}\left(\sqrt[4]{-\tan^2(a+b\log(cx^n))}\right)}{3bn\sqrt[4]{\tan(a+b\log(cx^n))}}
$$

```
[In] Integrate[Tan[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] (-3*ArcTan[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]])^(1/4)
 + 3*ArcTanh[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]])^(1/
4) + 2*Tan[a + b*Log[c*x^n]]^(7/4))/(3*b*n*Tan[a + b*Log[c*x^n]]^(1/4))
```

Maple [A] (verified)

Time = 1.02 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.69

method	result
derivativedivides	$\frac{\frac{2\tan(a+b\ln(c\,x^n))^{\frac{3}{2}}}{3}-\frac{\sqrt{2}\left(\ln\left(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\right.}{4}}{nb}$
default	$\frac{\frac{2\tan(a+b\ln(c\,x^n))^{\frac{3}{2}}}{3}-\frac{\sqrt{2}\left(\ln\left(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\right.}{4}}{nb}$

```
[In] int(tan(a+b*ln(c*x^n))^(5/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(2/3*tan(a+b*ln(c*x^n))^(3/2)-1/4*2^(1/2)*(ln((1-2^(1/2)*tan(a+b*ln(c
*x^n))^(1/2)+tan(a+b*ln(c*x^n)))/(1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+
b*ln(c*x^n))))+2*arctan(1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(
1/2)*tan(a+b*ln(c*x^n))^(1/2))))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 504, normalized size of antiderivative = 2.51

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx =$$

$$-\frac{3\left(bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\right)\log\left(b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\sin(2\,bn\log(x)+}{\cos(2\,bn\log(x)+2}}\right.}{}$$

```
[In] integrate(tan(a+b*log(c*x^n))^(5/2)/x,x, algorithm="fricas")
```

```
[Out] -1/6*(3*(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*
n*(-1/(b^4*n^4))^(1/4))*log(b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*l
og(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) + 3*
(-I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(
-1/(b^4*n^4))^(1/4))*log(I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*lo
g(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) + 3*(
I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + I*b*n*(-1
/(b^4*n^4))^(1/4))*log(-I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*log
(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 3*(b
*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n*(-1/(b^4
*n^4))^(1/4))*log(-b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*log(x) + 2
*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 4*sqrt(sin(
2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)
)*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(b*n*cos(2*b*n*log(x) + 2*b*log(c)
+ 2*a) + b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+b*ln(c*x**n))**(5/2)/x,x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\tan(b\log(cx^n)+a)^{\frac{5}{2}}}{x}\,dx$$

```
[In] integrate(tan(a+b*log(c*x^n))^(5/2)/x,x, algorithm="maxima")
[Out] integrate(tan(b*log(c*x^n) + a)^(5/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^(5/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 30.24 (sec) , antiderivative size = 79, normalized size of antiderivative = 0.39

$$\int \frac{\tan^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\tan(a+b\ln(c\,x^n))^{3/2}}{3\,b\,n} - \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)}{b\,n} + \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)}{b\,n}$$

```
[In] int(tan(a + b*log(c*x^n))^(5/2)/x,x)
[Out] (2*tan(a + b*log(c*x^n))^(3/2))/(3*b*n) - ((-1)^(1/4)*atan((-1)^(1/4)*tan(a
 + b*log(c*x^n))^(1/2)))/(b*n) + ((-1)^(1/4)*atanh((-1)^(1/4)*tan(a + b*log
(c*x^n))^(1/2)))/(b*n)
```

3.181 $\int \frac{\tan^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 2069
Rubi [A] (verified) 2070
Mathematica [A] (verified) 2073
Maple [A] (verified) 2073
Fricas [C] (verification not implemented) 2074
Sympy [F] 2074
Maxima [F] 2075
Giac [F(-1)] 2075
Mupad [B] (verification not implemented) 2075

Optimal result

Integrand size = 19, antiderivative size = 199

$$\int \frac{\tan^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1-2^(1/2)*tan(a+b*ln(c*
x^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)-1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)+2*tan(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.17 (sec) , antiderivative size = 199, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.474, Rules used = {3554, 3557, 335, 217, 1179, 642, 1176, 631, 210}

$$\int \frac{\tan^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} + \frac{\log\left(\tan(a+b\log(cx^n))-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log\left(\tan(a+b\log(cx^n))+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn}$$

```
[In] Int[Tan[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + Log[1 - Sqrt[2]*Sqrt[T
an[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 + Sq
rt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
+ (2*Sqrt[Tan[a + b*Log[c*x^n]]])/(b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \tan^{\frac{3}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}$$

$$= \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\tan(a+bx)}}\,dx, x, \log(cx^n)\right)}{n}$$

$$= \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{\sqrt{x}(1+x^2)}\,dx, x, \tan(a+b\log(cx^n))\right)}{bn}$$

$$= \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{2\text{Subst}\left(\int \frac{1}{1+x^4}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$= \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{bn} - \frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$= \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$
\begin{aligned}
&= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\
&\quad + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\
&\quad - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\
&\quad + \frac{2\sqrt{\tan(a+b\log(cx^n))}}{bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.23 (sec) , antiderivative size = 176, normalized size of antiderivative = 0.88

$$
\int \frac{\tan^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}} + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}} - \frac{\log\left(1\right.}{}}{bn}
$$

```
[In] Integrate[Tan[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] (ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/Sqrt[2] - ArcTan[1 + Sqrt[
2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/Sqrt[2] + Log[1 - Sqrt[2]*Sqrt[Tan[a + b*Lo
g[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]) - Log[1 + Sqrt[2]*Sqrt[Tan[
a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]) + 2*Sqrt[Tan[a + b*
Log[c*x^n]]])/(b*n)
```

Maple [A] (verified)

Time = 0.85 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.70

method	result
derivativedivides	$\frac{2\sqrt{\tan(a+b\ln(c\,x^n))}-\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-\right.\right.}{4}}{nb}$
default	$\frac{2\sqrt{\tan(a+b\ln(c\,x^n))}-\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-\right.\right.}{4}}{nb}$

```
[In] int(tan(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(2*tan(a+b*ln(c*x^n))^(1/2)-1/4*2^(1/2)*(ln((1+2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/(1-2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*
```

ln(c*x^n))))+2*arctan(1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/
2)*tan(a+b*ln(c*x^n))^(1/2))))

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 324, normalized size of antiderivative = 1.63

$$\int \frac{\tan^{\frac{3}{2}}(a + b\log(cx^n))}{x}\,dx =$$
$$-\frac{bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) + i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(}{\cos(2}}\right.}{}$$

```
[In] integrate(tan(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
```

```
[Out] -1/2*(b*n*(-1/(b^4*n^4))^(1/4)*log(b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*
n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) +
 I*b*n*(-1/(b^4*n^4))^(1/4)*log(I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n
*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) -
I*b*n*(-1/(b^4*n^4))^(1/4)*log(-I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n
*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) -
b*n*(-1/(b^4*n^4))^(1/4)*log(-b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log
(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 4*sq
rt(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*
a) + 1)))/(b*n)
```

Sympy [F]

$$\int \frac{\tan^{\frac{3}{2}}(a + b\log(cx^n))}{x}\,dx = \int \frac{\tan^{\frac{3}{2}}(a + b\log(cx^n))}{x}\,dx$$

```
[In] integrate(tan(a+b*ln(c*x**n))**(3/2)/x,x)
```

```
[Out] Integral(tan(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\tan^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x}\,dx=\int \frac{\tan\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}{x}\,dx$$

```
[In] integrate(tan(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")
[Out] integrate(tan(b*log(c*x^n) + a)^(3/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\tan^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x}\,dx=\text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.22 (sec) , antiderivative size = 78, normalized size of antiderivative = 0.39

$$\int \frac{\tan^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}{x}\,dx=\frac{2\,\sqrt{\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)}}{b\,n}+\frac{{\left(-1\right)}^{1/4}\,\mathrm{atan}\left({\left(-1\right)}^{1/4}\,\sqrt{\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\right)\,1{}\mathrm{i}}{b\,n}+\frac{{\left(-1\right)}^{1/4}\,\mathrm{atanh}\left({\left(-1\right)}^{1/4}\,\sqrt{\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\right)\,1{}\mathrm{i}}{b\,n}$$

```
[In] int(tan(a + b*log(c*x^n))^(3/2)/x,x)
[Out] (2*tan(a + b*log(c*x^n))^(1/2))/(b*n) + ((-1)^(1/4)*atan((-1)^(1/4)*tan(a +
 b*log(c*x^n))^(1/2))*1i)/(b*n) + ((-1)^(1/4)*atanh((-1)^(1/4)*tan(a + b*lo
g(c*x^n))^(1/2))*1i)/(b*n)
```

3.182 $\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx$

Optimal result 2076
Rubi [A] (verified) 2076
Mathematica [A] (verified) 2079
Maple [A] (verified) 2080
Fricas [C] (verification not implemented) 2080
Sympy [F] 2082
Maxima [F] 2082
Giac [F(-1)] 2082
Mupad [B] (verification not implemented) 2082

Optimal result

Integrand size = 19, antiderivative size = 176

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

```
[Out] 1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/2*arctan(1+2^
(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1-2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)-1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x^
n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.16 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.00, number of steps used = 12, number of rules used = 8, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.421, Rules used

$= \{3557, 335, 303, 1176, 631, 210, 1179, 642\}$

$$\int \frac{\sqrt{\tan (a+b\log (cx^n))}}{x}\,dx = -\frac{\arctan \left(1-\sqrt{2}\sqrt{\tan (a+b\log (cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan \left(\sqrt{2}\sqrt{\tan (a+b\log (cx^n))}+1\right)}{\sqrt{2}bn} + \frac{\log \left(\tan (a+b\log (cx^n))-\sqrt{2}\sqrt{\tan (a+b\log (cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log \left(\tan (a+b\log (cx^n))+\sqrt{2}\sqrt{\tan (a+b\log (cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[Sqrt[Tan[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + Log[1 - Sqrt[2]*Sqr
t[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 +
 Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*
n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
```

```
], x] /; RationalQ[q] && (EqQ[q^2, 1] || !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] && !
IntegerQ[n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sqrt{\tan(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= \frac{\text{Subst}\left(\int \frac{\sqrt{x}}{1+x^2}\,dx, x, \tan\left(a+b\log\left(cx^n\right)\right)\right)}{bn}\\
&= \frac{2\text{Subst}\left(\int \frac{x^2}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}\\
&= -\frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}+\frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}
\end{aligned}$$

$$= \frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.47

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx = \frac{\left(\arctan\left(\sqrt[4]{-\tan^2(a+b\log(cx^n))}\right) - \text{arctanh}\left(\sqrt[4]{-\tan^2(a+b\log(cx^n))}\right)\right)\sqrt[4]{-\tan(a+b\log(cx^n))}}{bn\sqrt[4]{\tan(a+b\log(cx^n))}}$$

```
[In] Integrate[Sqrt[Tan[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] ((ArcTan[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)] - ArcTanh[(-Tan[a + b*Log[c*x^n]
]^2)^(1/4)])*(-Tan[a + b*Log[c*x^n]])^(1/4))/(b*n*Tan[a + b*Log[c*x^n]]^(1/
4))
```

Maple [A] (verified)

Time = 0.86 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.69

method	result
derivativedivides	$\frac{\sqrt{2}\left(\ln\left(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a+\right.\right.}{4nb}$
default	$\frac{\sqrt{2}\left(\ln\left(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a+\right.\right.}{4nb}$

```
[In] int(tan(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/4/n/b*2^(1/2)*(ln((1-2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n)))
/(1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n))))+2*arctan(1+2^(1/2
)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 284, normalized size of antiderivative = 1.61

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx = \frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) - \frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) + \frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) - \frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right)$$

```
[In] integrate(tan(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")
```

```
[Out] 1/2*(-1/(b^4*n^4))^(1/4)*log(b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*
log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 1
/2*I*(-1/(b^4*n^4))^(1/4)*log(I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b
*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)))
+ 1/2*I*(-1/(b^4*n^4))^(1/4)*log(-I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin
(2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1
))) - 1/2*(-1/(b^4*n^4))^(1/4)*log(-b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin
(2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1
)))
```

Sympy [F]

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx=\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx$$

```
[In] integrate(tan(a+b*ln(c*x**n))**(1/2)/x,x)
[Out] Integral(sqrt(tan(a + b*log(c*x**n)))/x, x)
```

Maxima [F]

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx=\int \frac{\sqrt{\tan(b\log(cx^n)+a)}}{x}\,dx$$

```
[In] integrate(tan(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")
[Out] integrate(sqrt(tan(b*log(c*x^n) + a))/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx=\text{Timed out}$$

```
[In] integrate(tan(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.60 (sec) , antiderivative size = 131, normalized size of antiderivative = 0.74

$$\int \frac{\sqrt{\tan(a+b\log(cx^n))}}{x}\,dx$$
$$=\frac{\sqrt{2}\left(\operatorname{atan}\left(\sqrt{2}\sqrt{\tan(a+b\ln(c\,x^n))}-1\right)+\operatorname{atan}\left(\sqrt{2}\sqrt{\tan(a+b\ln(c\,x^n))}+1\right)\right)}{2\,b\,n}$$
$$+\frac{\sqrt{2}\left(\ln\left(\sqrt{2}\sqrt{\tan(a+b\ln(c\,x^n))}-\tan(a+b\ln(c\,x^n))-1\right)-\ln\left(\tan(a+b\ln(c\,x^n))+\sqrt{2}\sqrt{\tan(a}\right.\right.}{4\,b\,n}$$

```
[In] int(tan(a + b*log(c*x^n))^(1/2)/x,x)
[Out] (2^(1/2)*(atan(2^(1/2)*tan(a + b*log(c*x^n))^(1/2) - 1) + atan(2^(1/2)*tan(
a + b*log(c*x^n))^(1/2) + 1)))/(2*b*n) + (2^(1/2)*(log(2^(1/2)*tan(a + b*lo
g(c*x^n))^(1/2) - tan(a + b*log(c*x^n)) - 1) - log(tan(a + b*log(c*x^n)) +
2^(1/2)*tan(a + b*log(c*x^n))^(1/2) + 1)))/(4*b*n)
```

3.183 $\int \frac{1}{x\sqrt{\tan(a+b\log(cx^n))}}\,dx$

Optimal result . . . 2083
Rubi [A] (verified) . . . 2083
Mathematica [A] (verified) . . . 2086
Maple [A] (verified) . . . 2087
Fricas [C] (verification not implemented) . . . 2087
Sympy [F] . . . 2089
Maxima [F] . . . 2089
Giac [F(-1)] . . . 2089
Mupad [B] (verification not implemented) . . . 2089

Optimal result

Integrand size = 19, antiderivative size = 176

$$\int \frac{1}{x\sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn}+\frac{\arctan\left(1+\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}+\tan\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}+\tan\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn}$$

```
[Out] 1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/2*arctan(1+2^
(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1-2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)+1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x^
n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.15 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.00, number of steps used = 12, number of rules used = 8, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.421, Rules used

$= \{3557, 335, 217, 1179, 642, 1176, 631, 210\}$

$$\int \frac{1}{x\sqrt{\tan(a+b\log(cx^n))}}\,dx$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} - \frac{\log\left(\tan(a+b\log(cx^n))-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{\log\left(\tan(a+b\log(cx^n))+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[1/(x*Sqrt[Tan[a + b*Log[c*x^n]]]),x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - Log[1 - Sqrt[2]*Sqr
t[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 +
 Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*
n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
```

```
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\tan(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= \frac{\text{Subst}\left(\int \frac{1}{\sqrt{x}(1+x^2)}\,dx, x, \tan\left(a+b\log\left(cx^n\right)\right)\right)}{bn}\\
&= \frac{2\text{Subst}\left(\int \frac{1}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}\\
&= \frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}+\frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\tan\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}
\end{aligned}
$$

$$= \frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= -\frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 142, normalized size of antiderivative = 0.81

$$\int \frac{1}{x\sqrt{\tan(a+b\log(cx^n))}}\,dx = \frac{-2\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)+2\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)-\log\left(1-\sqrt{2}\sqrt{\tan\right.}}{2\sqrt{2}}$$

```
[In] Integrate[1/(x*Sqrt[Tan[a + b*Log[c*x^n]]]),x]
```

```
[Out] (-2*ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]] + 2*ArcTan[1 + Sqrt[2]*
Sqrt[Tan[a + b*Log[c*x^n]]]] - Log[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]
+ Tan[a + b*Log[c*x^n]]] + Log[1 + Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Ta
n[a + b*Log[c*x^n]]])/(2*Sqrt[2]*b*n)
```

Maple [A] (verified)

Time = 0.85 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.69

method	result
derivativedivides	$\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a\right.\right.}{4nb}$
default	$\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a\right.\right.}{4nb}$

```
[In] int(1/x/tan(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/4/n/b*2^(1/2)*(ln((1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n)))
/(1-2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n))))+2*arctan(1+2^(1/2
)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 268, normalized size of antiderivative = 1.52

$$\int \frac{1}{x\sqrt{\tan(a+b\log(cx^n))}}\,dx = \frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) + \frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) - \frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right) - \frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right)$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] 1/2*(-1/(b^4*n^4))^(1/4)*log(b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(
x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) + 1/2*I
*(-1/(b^4*n^4))^(1/4)*log(I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x
) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 1/2*I*
(-1/(b^4*n^4))^(1/4)*log(-I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x
) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 1/2*(-
1/(b^4*n^4))^(1/4)*log(-b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x) +
2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)))
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\tan \left(a+b\log \left(cx^n\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\tan \left(a+b\log \left(cx^n\right)\right)}}\,dx$$

```
[In] integrate(1/x/tan(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(1/(x*sqrt(tan(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\tan \left(a+b\log \left(cx^n\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\tan \left(b\log \left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/(x*sqrt(tan(b*log(c*x^n) + a))), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\sqrt{\tan \left(a+b\log \left(cx^n\right)\right)}}\,dx=\text{Timed out}$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.13 (sec) , antiderivative size = 59, normalized size of antiderivative = 0.34

$$\int \frac{1}{x\sqrt{\tan \left(a+b\log \left(cx^n\right)\right)}}\,dx=-\frac{{\left(-1\right)}^{1/4}\,\mathrm{atan}\left({\left(-1\right)}^{1/4}\,\sqrt{\tan \left(a+b\,\ln \left(c\,x^n\right)\right)}\right)\,1{}\mathrm{i}}{b\,n}-\frac{{\left(-1\right)}^{1/4}\,\mathrm{atanh}\left({\left(-1\right)}^{1/4}\,\sqrt{\tan \left(a+b\,\ln \left(c\,x^n\right)\right)}\right)\,1{}\mathrm{i}}{b\,n}$$

```
[In] int(1/(x*tan(a + b*log(c*x^n))^(1/2)),x)
[Out] - ((-1)^(1/4)*atan((-1)^(1/4)*tan(a + b*log(c*x^n))^(1/2))*1i)/(b*n) - ((-1
)^(1/4)*atanh((-1)^(1/4)*tan(a + b*log(c*x^n))^(1/2))*1i)/(b*n)
```

3.184 $\int \frac{1}{x \tan^{\frac{3}{2}}(a+b \log(cx^n))} dx$

Optimal result 2090
Rubi [A] (verified) 2091
Mathematica [A] (verified) 2094
Maple [A] (verified) 2094
Fricas [C] (verification not implemented) 2095
Sympy [F] 2095
Maxima [F] 2096
Giac [F(-1)] 2096
Mupad [B] (verification not implemented) 2096

Optimal result

Integrand size = 19, antiderivative size = 199

$$\begin{aligned}\int \frac{1}{x \tan^{\frac{3}{2}}(a+b\log(cx^n))} dx &= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\ &\quad - \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\ &\quad + \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\ &\quad - \frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}}\end{aligned}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1-2^(1/2)*tan(a+b*ln(c*
x^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)+1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)-2/b/n/tan(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.17 (sec) , antiderivative size = 199, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}} = 0.474$, Rules used = {3555, 3557, 335, 303, 1176, 631, 210, 1179, 642}

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn}$$
$$- \frac{\log\left(\tan(a+b\log(cx^n))-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$
$$+ \frac{\log\left(\tan(a+b\log(cx^n))+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$
$$- \frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}}$$

```
[In] Int[1/(x*Tan[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - Log[1 - Sqrt[2]*Sqrt[T
an[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 + Sq
rt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
- 2/(b*n*Sqrt[Tan[a + b*Log[c*x^n]]])
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3555

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(b*Tan[c + d*x]
)^(n + 1)/(b*d*(n + 1)), x] - Dist[1/b^2, Int[(b*Tan[c + d*x])^(n + 2), x],
 x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \frac{1}{\tan^{\frac{3}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$= -\frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\sqrt{\tan(a+bx)}\,dx,x,\log(cx^n)\right)}{n}$$

$$= -\frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\frac{\sqrt{x}}{1+x^2}\,dx,x,\tan(a+b\log(cx^n))\right)}{bn}$$

$$= -\frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} - \frac{2\text{Subst}\left(\int\frac{x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} + \frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn} - \frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= -\frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{2}{bn\sqrt{\tan(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}+\tan\left(a+b\log\left(cx^{n}\right)\right)\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}+\tan\left(a+b\log\left(cx^{n}\right)\right)\right)}{2\sqrt{2}bn} - \frac{2}{bn\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}}$$

Mathematica [A] (verified)

Time = 0.18 (sec) , antiderivative size = 105, normalized size of antiderivative = 0.53

$$\int \frac{1}{x\tan^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \frac{-2-\arctan\left(\sqrt[4]{-\tan^{2}\left(a+b\log\left(cx^{n}\right)\right)}\right)\sqrt[4]{-\tan^{2}\left(a+b\log\left(cx^{n}\right)\right)}+\operatorname{arctanh}\left(\sqrt[4]{-\tan^{2}\left(a+b\log\left(cx^{n}\right)\right)}\right)\cdots}{bn\sqrt{\tan\left(a+b\log\left(cx^{n}\right)\right)}}$$

```
[In] Integrate[1/(x*Tan[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (-2 - ArcTan[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]]^2)^(
1/4) + ArcTanh[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]]^2)
^(1/4))/(b*n*Sqrt[Tan[a + b*Log[c*x^n]]])
```

Maple [A] (verified)

Time = 0.84 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.70

method	result
derivativedivides	$-\frac{\frac{\sqrt{2}\,(\ln(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))})+2\arctan(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))})+2\arctan(-1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}\cdots}{4}}{nb}$
default	$-\frac{\frac{\sqrt{2}\,(\ln(\frac{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))}{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}+\tan(a+b\ln(c\,x^{n}))})+2\arctan(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))})+2\arctan(-1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^{n}))}\cdots}{4}}{nb}$

```
[In] int(1/x/tan(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(-1/4*2^(1/2)*(ln((1-2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^
n)))/(1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n))))+2*arctan(1+2^
(1/2)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2
)))-2/tan(a+b*ln(c*x^n))^(1/2))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.28 (sec) , antiderivative size = 440, normalized size of antiderivative = 2.21

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}}\right)\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)-i\,b\cdots}{\cdots}$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] -1/2*(b*n*(-1/(b^4*n^4))^(1/4)*log(b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(
2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)
))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b^4*n^4))^(1/4)*log(I*
b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)/(c
os(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)))*sin(2*b*n*log(x) + 2*b*log(c) +
2*a) + I*b*n*(-1/(b^4*n^4))^(1/4)*log(-I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqr
t(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a
) + 1)))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a) - b*n*(-1/(b^4*n^4))^(1/4)*lo
g(-b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)
/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)))*sin(2*b*n*log(x) + 2*b*log(c)
 + 2*a) + 4*sqrt(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2
*b*log(c) + 2*a) + 1))*(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))/(b*n*sin
(2*b*n*log(x) + 2*b*log(c) + 2*a))
```

Sympy [F]

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/tan(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(1/(x*tan(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\tan(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(1/(x*tan(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.23 (sec) , antiderivative size = 79, normalized size of antiderivative = 0.40

$$\int \frac{1}{x\tan^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\sqrt{\tan(a+b\ln(c\,x^n))}\right)}{b\,n} - \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\sqrt{\tan(a+b\ln(c\,x^n))}\right)}{b\,n} - \frac{2}{b\,n\,\sqrt{\tan(a+b\ln(c\,x^n))}}$$

```
[In] int(1/(x*tan(a + b*log(c*x^n))^(3/2)),x)
[Out] ((-1)^(1/4)*atanh((-1)^(1/4)*tan(a + b*log(c*x^n))^(1/2)))/(b*n) - ((-1)^(1
/4)*atan((-1)^(1/4)*tan(a + b*log(c*x^n))^(1/2)))/(b*n) - 2/(b*n*tan(a + b*
log(c*x^n))^(1/2))
```

3.185 $\int \frac{1}{x \tan^{\frac{5}{2}}(a+b\log(cx^n))} dx$

Optimal result . . . 2097
Rubi [A] (verified) . . . 2098
Mathematica [A] (verified) . . . 2101
Maple [A] (verified) . . . 2101
Fricas [C] (verification not implemented) . . . 2102
Sympy [F] . . . 2102
Maxima [F] . . . 2103
Giac [F(-1)] . . . 2103
Mupad [B] (verification not implemented) . . . 2103

Optimal result

Integrand size = 19, antiderivative size = 201

$$\int \frac{1}{x \tan^{\frac{5}{2}}(a+b\log(cx^n))} dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*tan(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1-2^(1/2)*tan(a+b*ln(c*
x^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)-1/4*ln(1+2^(1/2)*tan(a+b*ln(c*x
^n))^(1/2)+tan(a+b*ln(c*x^n)))/b/n*2^(1/2)-2/3/b/n/tan(a+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.16 (sec) , antiderivative size = 201, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.474, Rules used = {3555, 3557, 335, 217, 1179, 642, 1176, 631, 210}

$$\int \frac{1}{x\tan^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{\arctan\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} - \frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{\log\left(\tan(a+b\log(cx^n))-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log\left(\tan(a+b\log(cx^n))+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[1/(x*Tan[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Tan[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + Log[1 - Sqrt[2]*Sqrt[T
an[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 + Sq
rt[2]*Sqrt[Tan[a + b*Log[c*x^n]]] + Tan[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
- 2/(3*b*n*Tan[a + b*Log[c*x^n]]^(3/2))
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
```

```
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3555

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(b*Tan[c + d*x]
)^(n + 1)/(b*d*(n + 1)), x] - Dist[1/b^2, Int[(b*Tan[c + d*x])^(n + 2), x],
 x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \frac{1}{\tan^{\frac{5}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$=-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1}{\sqrt{\tan(a+bx)}}\,dx,x,\log(cx^n)\right)}{n}$$

$$=-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1}{\sqrt{x}(1+x^2)}\,dx,x,\tan(a+b\log(cx^n))\right)}{bn}$$

$$=-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{2\text{Subst}\left(\int\frac{1}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$=-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}-\frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{bn}$$

$$=-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn}-\frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2bn}+\frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}+\frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx,x,\sqrt{\tan(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$=\frac{\log\left(1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}-\frac{\log\left(1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}+\tan(a+b\log(cx^n))\right)}{2\sqrt{2}bn}-\frac{2}{3bn\tan^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1-\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}+\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1+\sqrt{2}\sqrt{\tan(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= \frac{\arctan\left(1 - \sqrt{2}\sqrt{\tan\left(a + b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1 + \sqrt{2}\sqrt{\tan\left(a + b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn}$$
$$+ \frac{\log\left(1 - \sqrt{2}\sqrt{\tan\left(a + b\log\left(cx^n\right)\right)} + \tan\left(a + b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn}$$
$$- \frac{\log\left(1 + \sqrt{2}\sqrt{\tan\left(a + b\log\left(cx^n\right)\right)} + \tan\left(a + b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn}$$
$$- \frac{2}{3bn\tan^{\frac{3}{2}}\left(a + b\log\left(cx^n\right)\right)}$$

Mathematica [A] (verified)

Time = 0.22 (sec) , antiderivative size = 109, normalized size of antiderivative = 0.54

$$\int \frac{1}{x\tan^{\frac{5}{2}}\left(a + b\log\left(cx^n\right)\right)}\,dx$$
$$= \frac{-2 + 3\arctan\left(\sqrt[4]{-\tan^2\left(a + b\log\left(cx^n\right)\right)}\right)\left(-\tan^2\left(a + b\log\left(cx^n\right)\right)\right)^{3/4} + 3\operatorname{arctanh}\left(\sqrt[4]{-\tan^2\left(a + b\log\right.}\right.}{3bn\tan^{\frac{3}{2}}\left(a + b\log\left(cx^n\right)\right)}$$

```
[In] Integrate[1/(x*Tan[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (-2 + 3*ArcTan[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]]^2)
^(3/4) + 3*ArcTanh[(-Tan[a + b*Log[c*x^n]]^2)^(1/4)]*(-Tan[a + b*Log[c*x^n]
]^2)^(3/4))/(3*b*n*Tan[a + b*Log[c*x^n]]^(3/2))
```

Maple [A] (verified)

Time = 0.87 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.69

method	result
derivativedivides	$-\frac{\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x\right.\right.}{4}}{nb}$
default	$-\frac{\frac{\sqrt{2}\left(\ln\left(\frac{1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}{1-\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}+\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\tan(a+b\ln(c\,x\right.\right.}{4}}{nb}$

```
[In] int(1/x/tan(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(-1/4*2^(1/2)*(ln((1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^
n)))/(1-2^(1/2)*tan(a+b*ln(c*x^n))^(1/2)+tan(a+b*ln(c*x^n))))+2*arctan(1+2^
```

```
(1/2)*tan(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*tan(a+b*ln(c*x^n))^(1/2
)))-2/3/tan(a+b*ln(c*x^n))^(3/2))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 493, normalized size of antiderivative = 2.45

$$\int \frac{1}{x\tan^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = -\frac{3\left(bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos(2bn\log(x)+2b\log(c)+2a) - bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\right)\log\left(bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}} + \sqrt{\frac{\sin(2bn\log(x)+2b\,\mathrm{l}}{\cos(2bn\log(x)+2b\log}}\right.}{}$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] -1/6*(3*(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - b*
n*(-1/(b^4*n^4))^(1/4))*log(b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x
) + 2*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) + 3*(I*b
*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b
^4*n^4))^(1/4))*log(I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x) + 2*
b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) + 3*(-I*b*n*(-
1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + I*b*n*(-1/(b^4*n^
4))^(1/4))*log(-I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x) + 2*b*lo
g(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 3*(b*n*(-1/(b^4*
n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - b*n*(-1/(b^4*n^4))^(1/4)
)*log(-b*n*(-1/(b^4*n^4))^(1/4) + sqrt(sin(2*b*n*log(x) + 2*b*log(c) + 2*a)
/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))) - 4*sqrt(sin(2*b*n*log(x) + 2
*b*log(c) + 2*a)/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))*(cos(2*b*n*log
(x) + 2*b*log(c) + 2*a) + 1))/(b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - b
*n)
```

Sympy [F]

$$\int \frac{1}{x\tan^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\tan^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/tan(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Integral(1/(x*tan(a + b*log(c*x**n))**(5/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\tan^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \frac{1}{x\tan\left(b\log\left(cx^{n}\right)+a\right)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(1/(x*tan(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\tan^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/tan(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 31.70 (sec) , antiderivative size = 78, normalized size of antiderivative = 0.39

$$\int \frac{1}{x\tan^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = -\frac{2}{3\,b\,n\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)^{3/2}} + \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\,\sqrt{\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\right)\,1\mathrm{i}}{b\,n} + \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\,\sqrt{\tan\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\right)\,1\mathrm{i}}{b\,n}$$

```
[In] int(1/(x*tan(a + b*log(c*x^n))^(5/2)),x)
[Out] ((-1)^(1/4)*atan((-1)^(1/4)*tan(a + b*log(c*x^n))^(1/2))*1i)/(b*n) - 2/(3*b
*n*tan(a + b*log(c*x^n))^(3/2)) + ((-1)^(1/4)*atanh((-1)^(1/4)*tan(a + b*lo
g(c*x^n))^(1/2))*1i)/(b*n)
```

3.186 $\int x^3 \cot(a + i \log(x)) \, dx$

Optimal result 2104
Rubi [A] (verified) 2104
Mathematica [B] (verified) 2105
Maple [A] (verified) 2106
Fricas [A] (verification not implemented) 2106
Sympy [A] (verification not implemented) 2107
Maxima [B] (verification not implemented) 2107
Giac [A] (verification not implemented) 2107
Mupad [B] (verification not implemented) 2108

Optimal result

Integrand size = 13, antiderivative size = 49

$$\int x^3 \cot(a + i \log(x)) \, dx = -ie^{2ia}x^2 - \frac{ix^4}{4} - ie^{4ia} \log\left(e^{2ia} - x^2\right)$$

```
[Out] -I*exp(2*I*a)*x^2-1/4*I*x^4-I*exp(4*I*a)*ln(exp(2*I*a)-x^2)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.308$, Rules used = {4592, 456, 457, 78}

$$\int x^3 \cot(a + i \log(x)) \, dx = -ie^{2ia}x^2 - ie^{4ia} \log\left(-x^2 + e^{2ia}\right) - \frac{ix^4}{4}$$

```
[In] Int[x^3*Cot[a + I*Log[x]],x]
```

```
[Out] (-I)*E^((2*I)*a)*x^2 - (I/4)*x^4 - I*E^((4*I)*a)*Log[E^((2*I)*a) - x^2]
```

Rule 78

```
Int[((a_.) + (b_.)*(x_))*((c_) + (d_.)*(x_))^(n_.)*((e_.) + (f_.)*(x_))^(p_
.), x_Symbol] :> Int[ExpandIntegrand[(a + b*x)*(c + d*x)^n*(e + f*x)^p, x],
 x] /; FreeQ[{a, b, c, d, e, f, n}, x] && NeQ[b*c - a*d, 0] && ((ILtQ[n, 0]
 && ILtQ[p, 0]) || EqQ[p, 1] || (IGtQ[p, 0] && ( !IntegerQ[n] || LeQ[9*p +
5*(n + 2), 0] || GeQ[n + p + 1, 0] || (GeQ[n + p + 2, 0] && RationalQ[a, b,
 c, d, e, f]))))
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 457

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[x^(Simplify[(m + 1)/n] - 1)*(a + b*x)^p
*(c + d*x)^q, x], x, x^n], x] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[
b*c - a*d, 0] && IntegerQ[Simplify[(m + 1)/n]]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)x^3}{1-\frac{e^{2ia}}{x^2}}\,dx \\
&= \int \frac{x^3(-ie^{2ia}-ix^2)}{-e^{2ia}+x^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{(-ie^{2ia}-ix)\,x}{-e^{2ia}+x}\,dx,x,x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-2ie^{2ia}+\frac{2ie^{4ia}}{e^{2ia}-x}-ix\right)\,dx,x,x^2\right) \\
&= -ie^{2ia}x^2-\frac{ix^4}{4}-ie^{4ia}\log\left(e^{2ia}-x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 137 vs. $2(49) = 98$.

Time = 0.09 (sec) , antiderivative size = 137, normalized size of antiderivative = 2.80

$$\int x^3 \cot(a+i\log(x))\,dx = -\frac{ix^4}{4} - ix^2\cos(2a) - \arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\cos(4a) - \frac{1}{2}i\cos(4a)\log\left(1+x^4-2x^2\cos(2a)\right) + x^2\sin(2a) - i\arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\sin(4a) + \frac{1}{2}\log\left(1+x^4-2x^2\cos(2a)\right)\sin(4a)$$

```
[In] Integrate[x^3*Cot[a + I*Log[x]],x]
```

```
[Out] (-1/4*I)*x^4 - I*x^2*Cos[2*a] - ArcTan[((-1 + x^2)*Cos[a])/(-Sin[a] - x^2*S
in[a])]*Cos[4*a] - (I/2)*Cos[4*a]*Log[1 + x^4 - 2*x^2*Cos[2*a]] + x^2*Sin[2
*a] - I*ArcTan[((-1 + x^2)*Cos[a])/(-Sin[a] - x^2*Sin[a])]*Sin[4*a] + (Log[
1 + x^4 - 2*x^2*Cos[2*a]]*Sin[4*a])/2
```

Maple [A] (verified)

Time = 0.48 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.80

method	result	size
risch	$-i{\rm e}^{2ia}x^2-\frac{ix^4}{4}-i{\rm e}^{4ia}\ln\left({\rm e}^{2ia}-x^2\right)$	39

```
[In] int(x^3*cot(a+I*ln(x)),x,method=_RETURNVERBOSE)
```

```
[Out] -I*exp(2*I*a)*x^2-1/4*I*x^4-I*exp(4*I*a)*ln(exp(2*I*a)-x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 32, normalized size of antiderivative = 0.65

$$\int x^3 \cot(a+i\log(x))\,dx = -\frac{1}{4}i\,x^4 - i\,x^2e^{(2i\,a)} - i\,e^{(4i\,a)}\log\left(x^2-e^{(2i\,a)}\right)$$

```
[In] integrate(x^3*cot(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] -1/4*I*x^4 - I*x^2*e^(2*I*a) - I*e^(4*I*a)*log(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.12 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.80

$$\int x^3\cot(a+i\log(x))\,dx=-\frac{ix^4}{4}-ix^2e^{2ia}-ie^{4ia}\log\left(x^2-e^{2ia}\right)$$

```
[In] integrate(x**3*cot(a+I*ln(x)),x)
[Out] -I*x**4/4 - I*x**2*exp(2*I*a) - I*exp(4*I*a)*log(x**2 - exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 131 vs. 2(32) = 64.

Time = 0.23 (sec) , antiderivative size = 131, normalized size of antiderivative = 2.67

$$\begin{aligned}\int x^3\cot(a+i\log(x))\,dx=&-\frac{1}{4}i\,x^4-x^2(i\,\cos(2\,a)-\sin(2\,a))\\&+(\cos(4\,a)+i\,\sin(4\,a))\arctan(\sin(a)\,,x+\cos(a))\\&-(\cos(4\,a)+i\,\sin(4\,a))\arctan(\sin(a)\,,x-\cos(a))\\&-\frac{1}{2}(i\,\cos(4\,a)-\sin(4\,a))\log\left(x^2+2\,x\cos(a)+\cos(a)^2\right.\\&\left.+\sin(a)^2\right)-\frac{1}{2}(i\,\cos(4\,a)-\sin(4\,a))\log\left(x^2-2\,x\cos(a)\right.\\&\left.+\cos(a)^2+\sin(a)^2\right)\end{aligned}$$

```
[In] integrate(x^3*cot(a+I*log(x)),x, algorithm="maxima")
[Out] -1/4*I*x^4 - x^2*(I*cos(2*a) - sin(2*a)) + (cos(4*a) + I*sin(4*a))*arctan2(
sin(a), x + cos(a)) - (cos(4*a) + I*sin(4*a))*arctan2(sin(a), x - cos(a)) -
 1/2*(I*cos(4*a) - sin(4*a))*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2) -
1/2*(I*cos(4*a) - sin(4*a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2)
```

Giac [A] (verification not implemented)

none

Time = 0.29 (sec) , antiderivative size = 50, normalized size of antiderivative = 1.02

$$\begin{aligned}\int x^3\cot(a+i\log(x))\,dx=&-\frac{1}{4}i\,x^4-i\,x^2e^{(2i\,a)}+\frac{1}{2}\pi e^{(4i\,a)}\\&-i\,e^{(4i\,a)}\log\left(x+e^{(i\,a)}\right)-i\,e^{(4i\,a)}\log\left(-x+e^{(i\,a)}\right)\end{aligned}$$

```
[In] integrate(x^3*cot(a+I*log(x)),x, algorithm="giac")
[Out] -1/4*I*x^4 - I*x^2*e^(2*I*a) + 1/2*pi*e^(4*I*a) - I*e^(4*I*a)*log(x + e^(I*
a)) - I*e^(4*I*a)*log(-x + e^(I*a))
```

Mupad [B] (verification not implemented)

Time = 28.44 (sec) , antiderivative size = 38, normalized size of antiderivative = 0.78

$$\int x^3 \cot(a + i \log(x)) \, dx = -x^2 \, e^{a \, 2i} \, 1i - \ln\left(x^2 - e^{a \, 2i}\right) \, e^{a \, 4i} \, 1i - \frac{x^4 \, 1i}{4}$$

```
[In] int(x^3*cot(a + log(x)*1i),x)
[Out] - x^2*exp(a*2i)*1i - log(x^2 - exp(a*2i))*exp(a*4i)*1i - (x^4*1i)/4
```

3.187 $\int x^2 \cot(a+i\log(x))\,dx$

Optimal result 2109
Rubi [A] (verified) 2109
Mathematica [A] (verified) 2111
Maple [A] (verified) 2111
Fricas [B] (verification not implemented) 2111
Sympy [A] (verification not implemented) 2112
Maxima [B] (verification not implemented) 2112
Giac [A] (verification not implemented) 2112
Mupad [B] (verification not implemented) 2113

Optimal result

Integrand size = 13, antiderivative size = 43

$$\int x^2 \cot(a+i\log(x))\,dx=-2ie^{2ia}x-\frac{ix^3}{3}+2ie^{3ia}\text{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -2*I*exp(2*I*a)*x-1/3*I*x^3+2*I*exp(3*I*a)*arctanh(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 43, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.385, Rules used = {4592, 456, 470, 327, 213}

$$\int x^2 \cot(a+i\log(x))\,dx=2ie^{3ia}\text{arctanh}\left(e^{-ia}x\right)-2ie^{2ia}x-\frac{ix^3}{3}$$

```
[In] Int[x^2*Cot[a + I*Log[x]],x]
```

```
[Out] (-2*I)*E^((2*I)*a)*x - (I/3)*x^3 + (2*I)*E^((3*I)*a)*ArcTanh[x/E^(I*a)]
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 327

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(n
 - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*(m + n*p + 1))), x] - Dist[
a*c^n*((m - n + 1)/(b*(m + n*p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^p, x],
```

```
x] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && GtQ[m, n - 1] && NeQ[m + n*p
 + 1, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)x^2}{1-\frac{e^{2ia}}{x^2}}\,dx \\
&= \int \frac{x^2\left(-ie^{2ia}-ix^2\right)}{-e^{2ia}+x^2}\,dx \\
&= -\frac{ix^3}{3}-\left(2ie^{2ia}\right)\int \frac{x^2}{-e^{2ia}+x^2}\,dx \\
&= -2ie^{2ia}x-\frac{ix^3}{3}-\left(2ie^{4ia}\right)\int \frac{1}{-e^{2ia}+x^2}\,dx \\
&= -2ie^{2ia}x-\frac{ix^3}{3}+2ie^{3ia}\operatorname{arctanh}\left(e^{-ia}x\right)
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.02 (sec) , antiderivative size = 66, normalized size of antiderivative = 1.53

$$\int x^2 \cot(a+i\log(x))\,dx = -\frac{ix^3}{3} - 2ix\cos(2a) + 2i\text{arctanh}(x\cos(a) - ix\sin(a))\cos(3a) + 2x\sin(2a) - 2\text{arctanh}(x\cos(a) - ix\sin(a))\sin(3a)$$

```
[In] Integrate[x^2*Cot[a + I*Log[x]],x]
```

```
[Out] (-1/3*I)*x^3 - (2*I)*x*Cos[2*a] + (2*I)*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Cos[
3*a] + 2*x*Sin[2*a] - 2*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Sin[3*a]
```

Maple [A] (verified)

Time = 0.47 (sec) , antiderivative size = 33, normalized size of antiderivative = 0.77

method	result	size
risch	$-\frac{ix^3}{3} - 2i\mathrm{e}^{2ia}x + 2i\,\text{arctanh}\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{3ia}$	33

```
[In] int(x^2*cot(a+I*ln(x)),x,method=_RETURNVERBOSE)
```

```
[Out] -1/3*I*x^3-2*I*exp(2*I*a)*x+2*I*arctanh(x*exp(-I*a))*exp(3*I*a)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 78 vs. 2(26) = 52.

Time = 0.24 (sec) , antiderivative size = 78, normalized size of antiderivative = 1.81

$$\int x^2 \cot(a+i\log(x))\,dx = -\frac{1}{3}i\,x^3 - 2i\,xe^{(2i\,a)} - \sqrt{-e^{(6i\,a)}}\log\left(\left(xe^{(2i\,a)} + i\,\sqrt{-e^{(6i\,a)}}\right)e^{(-2i\,a)}\right) + \sqrt{-e^{(6i\,a)}}\log\left(\left(xe^{(2i\,a)} - i\,\sqrt{-e^{(6i\,a)}}\right)e^{(-2i\,a)}\right)$$

```
[In] integrate(x^2*cot(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] -1/3*I*x^3 - 2*I*x*e^(2*I*a) - sqrt(-e^(6*I*a))*log((x*e^(2*I*a) + I*sqrt(-
e^(6*I*a)))*e^(-2*I*a)) + sqrt(-e^(6*I*a))*log((x*e^(2*I*a) - I*sqrt(-e^(6*
I*a)))*e^(-2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.11 (sec) , antiderivative size = 63, normalized size of antiderivative = 1.47

$$\int x^2 \cot(a + i\log(x))\,dx = -\frac{ix^3}{3} - 2ixe^{2ia} - \left(i\log\left(xe^{2ia} - e^{3ia}\right) - i\log\left(xe^{2ia} + e^{3ia}\right)\right)e^{3ia}$$

```
[In] integrate(x**2*cot(a+I*ln(x)),x)
[Out] -I*x**3/3 - 2*I*x*exp(2*I*a) - (I*log(x*exp(2*I*a) - exp(3*I*a)) - I*log(x*
exp(2*I*a) + exp(3*I*a)))*exp(3*I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 126 vs. 2(26) = 52.

Time = 0.22 (sec) , antiderivative size = 126, normalized size of antiderivative = 2.93

$$\begin{aligned}\int x^2 \cot(a + i\log(x))\,dx = & -\frac{1}{3}i\,x^3 + 2\,x(-i\,\cos(2\,a) + \sin(2\,a)) \\ & - (\cos(3\,a) + i\,\sin(3\,a))\arctan(\sin(a)\,, x + \cos(a)) \\ & - (\cos(3\,a) + i\,\sin(3\,a))\arctan(\sin(a)\,, x - \cos(a)) \\ & + \frac{1}{2}(i\,\cos(3\,a) - \sin(3\,a))\log\left(x^2 + 2\,x\cos(a) + \cos(a)^2\right. \\ & \left. + \sin(a)^2\right) + \frac{1}{2}(-i\,\cos(3\,a) + \sin(3\,a))\log\left(x^2 - 2\,x\cos(a)\right. \\ & \left. + \cos(a)^2 + \sin(a)^2\right)\end{aligned}$$

```
[In] integrate(x^2*cot(a+I*log(x)),x, algorithm="maxima")
[Out] -1/3*I*x^3 + 2*x*(-I*cos(2*a) + sin(2*a)) - (cos(3*a) + I*sin(3*a))*arctan2
(sin(a), x + cos(a)) - (cos(3*a) + I*sin(3*a))*arctan2(sin(a), x - cos(a))
+ 1/2*(I*cos(3*a) - sin(3*a))*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2) +
 1/2*(-I*cos(3*a) + sin(3*a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2)
```

Giac [A] (verification not implemented)

none

Time = 0.30 (sec) , antiderivative size = 41, normalized size of antiderivative = 0.95

$$\int x^2 \cot(a + i\log(x))\,dx = -\frac{1}{3}i\,x^3 - 2i\,xe^{(2i\,a)} + i\,e^{(3i\,a)}\log\left(x + e^{(i\,a)}\right) - i\,e^{(3i\,a)}\log\left(-x + e^{(i\,a)}\right)$$

```
[In] integrate(x^2*cot(a+I*log(x)),x, algorithm="giac")
[Out] -1/3*I*x^3 - 2*I*x*e^(2*I*a) + I*e^(3*I*a)*log(x + e^(I*a)) - I*e^(3*I*a)*l
og(-x + e^(I*a))
```

Mupad [B] (verification not implemented)

Time = 27.49 (sec) , antiderivative size = 40, normalized size of antiderivative = 0.93

$$\int x^2 \cot(a + i \log(x)) \, dx = -\mathrm{atan}\left(\frac{x}{\sqrt{-\mathrm{e}^{a\,2\mathrm{i}}}}\right) \left(-\mathrm{e}^{a\,2\mathrm{i}}\right)^{3/2} 2\mathrm{i} - \frac{x^3\,1\mathrm{i}}{3} - x\,\mathrm{e}^{a\,2\mathrm{i}}\,2\mathrm{i}$$

```
[In] int(x^2*cot(a + log(x)*1i),x)
[Out] - atan(x/(-exp(a*2i))^(1/2))*(-exp(a*2i))^(3/2)*2i - (x^3*1i)/3 - x*exp(a*2
i)*2i
```

3.188 $\int x \cot(a + i \log(x)) \, dx$

Optimal result 2114
Rubi [A] (verified) 2114
Mathematica [B] (verified) 2115
Maple [A] (verified) 2116
Fricas [A] (verification not implemented) 2116
Sympy [A] (verification not implemented) 2116
Maxima [B] (verification not implemented) 2117
Giac [A] (verification not implemented) 2117
Mupad [B] (verification not implemented) 2117

Optimal result

Integrand size = 11, antiderivative size = 35

$$\int x \cot(a + i \log(x)) \, dx = -\frac{ix^2}{2} - ie^{2ia} \log\left(e^{2ia} - x^2\right)$$

```
[Out] -1/2*I*x^2-I*exp(2*I*a)*ln(exp(2*I*a)-x^2)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.364$, Rules used = {4592, 456, 455, 45}

$$\int x \cot(a + i \log(x)) \, dx = -ie^{2ia} \log\left(-x^2 + e^{2ia}\right) - \frac{ix^2}{2}$$

```
[In] Int[x*Cot[a + I*Log[x]],x]
[Out] (-1/2*I)*x^2 - I*E^((2*I)*a)*Log[E^((2*I)*a) - x^2]
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)x}{1-\frac{e^{2ia}}{x^2}}\,dx \\
&= \int \frac{x(-ie^{2ia}-ix^2)}{-e^{2ia}+x^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{-ie^{2ia}-ix}{-e^{2ia}+x}\,dx,x,x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-i+\frac{2ie^{2ia}}{e^{2ia}-x}\right)\,dx,x,x^2\right) \\
&= -\frac{ix^2}{2}-ie^{2ia}\log\left(e^{2ia}-x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 118 vs. 2(35) = 70.

Time = 0.02 (sec) , antiderivative size = 118, normalized size of antiderivative = 3.37

$$\begin{aligned}
\int x\cot(a+i\log(x))\,dx = &-\frac{ix^2}{2}-\arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\cos(2a) \\
&-\frac{1}{2}i\cos(2a)\log\left(1+x^4-2x^2\cos(2a)\right) \\
&-i\arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\sin(2a) \\
&+\frac{1}{2}\log\left(1+x^4-2x^2\cos(2a)\right)\sin(2a)
\end{aligned}$$

```
[In] Integrate[x*Cot[a + I*Log[x]],x]
```

```
[Out] (-1/2*I)*x^2 - ArcTan[((-1 + x^2)*Cos[a])/(-Sin[a] - x^2*Sin[a])]*Cos[2*a]
- (I/2)*Cos[2*a]*Log[1 + x^4 - 2*x^2*Cos[2*a]] - I*ArcTan[((-1 + x^2)*Cos[a
])/(-Sin[a] - x^2*Sin[a])]*Sin[2*a] + (Log[1 + x^4 - 2*x^2*Cos[2*a]]*Sin[2*
a])/2
```

Maple [A] (verified)

Time = 0.46 (sec) , antiderivative size = 28, normalized size of antiderivative = 0.80

method	result	size
risch	$-\frac{i x^{2}}{2}-i \mathrm{e}^{2 i a} \ln \left(\mathrm{e}^{2 i a}-x^{2}\right)$	28

```
[In] int(x*cot(a+I*ln(x)),x,method=_RETURNVERBOSE)
```

```
[Out] -1/2*I*x^2-I*exp(2*I*a)*ln(exp(2*I*a)-x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 23, normalized size of antiderivative = 0.66

$$\int x\cot(a+i\log(x))\,dx=-\frac{1}{2}i\,x^{2}-i\,e^{(2i\,a)}\log\left(x^{2}-e^{(2i\,a)}\right)$$

```
[In] integrate(x*cot(a+I*log(x)),x, algorithm="fricas")
```

```
[Out] -1/2*I*x^2 - I*e^(2*I*a)*log(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.12 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.77

$$\int x\cot(a+i\log(x))\,dx=-\frac{ix^{2}}{2}-ie^{2ia}\log\left(x^{2}-e^{2ia}\right)$$

```
[In] integrate(x*cot(a+I*ln(x)),x)
```

```
[Out] -I*x**2/2 - I*exp(2*I*a)*log(x**2 - exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 109 vs. 2(23) = 46.

Time = 0.21 (sec) , antiderivative size = 109, normalized size of antiderivative = 3.11

$$\int x\cot(a+i\log(x))\,dx = -\frac{1}{2}i\,x^2 + (\cos(2\,a) + i\,\sin(2\,a))\arctan(\sin(a), x+\cos(a)) - (\cos(2\,a) + i\,\sin(2\,a))\arctan(\sin(a), x-\cos(a)) + \frac{1}{2}(-i\,\cos(2\,a) + \sin(2\,a))\log\left(x^2 + 2\,x\cos(a) + \cos(a)^2 + \sin(a)^2\right) + \frac{1}{2}(-i\,\cos(2\,a) + \sin(2\,a))\log\left(x^2 - 2\,x\cos(a) + \cos(a)^2 + \sin(a)^2\right)$$

```
[In] integrate(x*cot(a+I*log(x)),x, algorithm="maxima")
```

```
[Out] -1/2*I*x^2 + (cos(2*a) + I*sin(2*a))*arctan2(sin(a), x + cos(a)) - (cos(2*a
) + I*sin(2*a))*arctan2(sin(a), x - cos(a)) + 1/2*(-I*cos(2*a) + sin(2*a))*
log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2) + 1/2*(-I*cos(2*a) + sin(2*a))*
log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2)
```

Giac [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 41, normalized size of antiderivative = 1.17

$$\int x\cot(a+i\log(x))\,dx = -\frac{1}{2}i\,x^2 + \frac{1}{2}\,\pi e^{(2i\,a)} - i\,e^{(2i\,a)}\log\left(x + e^{(i\,a)}\right) - i\,e^{(2i\,a)}\log\left(-x + e^{(i\,a)}\right)$$

```
[In] integrate(x*cot(a+I*log(x)),x, algorithm="giac")
```

```
[Out] -1/2*I*x^2 + 1/2*pi*e^(2*I*a) - I*e^(2*I*a)*log(x + e^(I*a)) - I*e^(2*I*a)*
log(-x + e^(I*a))
```

Mupad [B] (verification not implemented)

Time = 28.09 (sec) , antiderivative size = 27, normalized size of antiderivative = 0.77

$$\int x\cot(a+i\log(x))\,dx = -\ln\left(x^2 - \mathrm{e}^{a\,2\mathrm{i}}\right)\,\mathrm{e}^{a\,2\mathrm{i}}\,1\mathrm{i} - \frac{x^2\,1\mathrm{i}}{2}$$

```
[In] int(x*cot(a + log(x)*1i),x)
```

```
[Out] - log(x^2 - exp(a*2i))*exp(a*2i)*1i - (x^2*1i)/2
```

3.189 $\int \cot(a+i\log(x))\,dx$

Optimal result 2118
Rubi [A] (verified) 2118
Mathematica [A] (verified) 2119
Maple [A] (verified) 2120
Fricas [B] (verification not implemented) 2120
Sympy [A] (verification not implemented) 2120
Maxima [B] (verification not implemented) 2121
Giac [A] (verification not implemented) 2121
Mupad [B] (verification not implemented) 2121

Optimal result

Integrand size = 9, antiderivative size = 27

$$\int \cot(a+i\log(x))\,dx = -ix+2ie^{ia}\text{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -I*x+2*I*exp(I*a)*arctanh(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 27, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4588, 381, 396, 213}

$$\int \cot(a+i\log(x))\,dx = 2ie^{ia}\text{arctanh}\left(e^{-ia}x\right)-ix$$

```
[In] Int[Cot[a + I*Log[x]],x]
```

```
[Out] (-I)*x + (2*I)*E^(I*a)*ArcTanh[x/E^(I*a)]
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 381

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.), x_Symbol
] :> Int[x^(n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; FreeQ[{a, b, c, d
, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[n]
```

Rule 396

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)), x_Symbol] :> Si
mp[d*x*((a + b*x^n)^(p + 1)/(b*(n*(p + 1) + 1))), x] - Dist[(a*d - b*c*(n*(
p + 1) + 1))/(b*(n*(p + 1) + 1)), Int[(a + b*x^n)^p, x], x] /; FreeQ[{a, b,
 c, d, n}, x] && NeQ[b*c - a*d, 0] && NeQ[n*(p + 1) + 1, 0]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{-i-\frac{ie^{2ia}}{x^2}}{1-\frac{e^{2ia}}{x^2}}\,dx\\
&= \int \frac{-ie^{2ia}-ix^2}{-e^{2ia}+x^2}\,dx\\
&= -ix-\left(2ie^{2ia}\right)\int \frac{1}{-e^{2ia}+x^2}\,dx\\
&= -ix+2ie^{ia}\text{arctanh}\left(e^{-ia}x\right)
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.01 (sec) , antiderivative size = 42, normalized size of antiderivative = 1.56

$$\begin{aligned}
\int \cot(a+i\log(x))\,dx = &-ix+2i\text{arctanh}(x\cos(a)-ix\sin(a))\cos(a)\\
&-2\text{arctanh}(x\cos(a)-ix\sin(a))\sin(a)
\end{aligned}$$

```
[In] Integrate[Cot[a + I*Log[x]],x]
[Out] (-I)*x + (2*I)*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Cos[a] - 2*ArcTanh[x*Cos[a] -
 I*x*Sin[a]]*Sin[a]
```

Maple [A] (verified)

Time = 0.51 (sec) , antiderivative size = 22, normalized size of antiderivative = 0.81

method	result	size
risch	$-ix+2i\,\mathrm{arctanh}\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{ia}$	22

```
[In] int(cot(a+I*ln(x)),x,method=_RETURNVERBOSE)
[Out] -I*x+2*I*arctanh(x*exp(-I*a))*exp(I*a)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 49 vs. 2(17) = 34.

Time = 0.26 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.81

$$\int \cot(a+i\log(x))\,dx = -\sqrt{-e^{(2i\,a)}}\log\left(x+i\,\sqrt{-e^{(2i\,a)}}\right) + \sqrt{-e^{(2i\,a)}}\log\left(x-i\,\sqrt{-e^{(2i\,a)}}\right) - i\,x$$

```
[In] integrate(cot(a+I*log(x)),x, algorithm="fricas")
[Out] -sqrt(-e^(2*I*a))*log(x + I*sqrt(-e^(2*I*a))) + sqrt(-e^(2*I*a))*log(x - I*
sqrt(-e^(2*I*a))) - I*x
```

Sympy [A] (verification not implemented)

Time = 0.11 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.07

$$\int \cot(a+i\log(x))\,dx = -ix - \left(i\log\left(x-e^{ia}\right) - i\log\left(x+e^{ia}\right)\right)e^{ia}$$

```
[In] integrate(cot(a+I*ln(x)),x)
[Out] -I*x - (I*log(x - exp(I*a)) - I*log(x + exp(I*a)))*exp(I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 94 vs. $2(17) = 34$.

Time = 0.21 (sec) , antiderivative size = 94, normalized size of antiderivative = 3.48

$$\begin{aligned}\int \cot(a + i\log(x))\,dx = &-(\cos(a) + i\sin(a))\arctan(\sin(a), x + \cos(a)) \\ &- (\cos(a) + i\sin(a))\arctan(\sin(a), x - \cos(a)) \\ &- \frac{1}{2}(-i\cos(a) + \sin(a))\log\left(x^2 + 2x\cos(a) + \cos(a)^2 + \sin(a)^2\right) \\ &- \frac{1}{2}(i\cos(a) - \sin(a))\log\left(x^2 - 2x\cos(a) + \cos(a)^2 + \sin(a)^2\right) \\ &- ix\end{aligned}$$

```
[In] integrate(cot(a+I*log(x)),x, algorithm="maxima")
```

```
[Out] -(cos(a) + I*sin(a))*arctan2(sin(a), x + cos(a)) - (cos(a) + I*sin(a))*arct
an2(sin(a), x - cos(a)) - 1/2*(-I*cos(a) + sin(a))*log(x^2 + 2*x*cos(a) + c
os(a)^2 + sin(a)^2) - 1/2*(I*cos(a) - sin(a))*log(x^2 - 2*x*cos(a) + cos(a)
^2 + sin(a)^2) - I*x
```

Giac [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.19

$$\int \cot(a + i\log(x))\,dx = ie^{(ia)}\log\left(x + e^{(ia)}\right) - ie^{(ia)}\log\left(-x + e^{(ia)}\right) - ix$$

```
[In] integrate(cot(a+I*log(x)),x, algorithm="giac")
```

```
[Out] I*e^(I*a)*log(x + e^(I*a)) - I*e^(I*a)*log(-x + e^(I*a)) - I*x
```

Mupad [B] (verification not implemented)

Time = 27.23 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.07

$$\int \cot(a + i\log(x))\,dx = -x\,1\mathrm{i} + \operatorname{atan}\left(\frac{x}{\sqrt{-\mathrm{e}^{a\,2\mathrm{i}}}}\right)\sqrt{-\mathrm{e}^{a\,2\mathrm{i}}}\,2\mathrm{i}$$

```
[In] int(cot(a + log(x)*1i),x)
```

```
[Out] atan(x/(-exp(a*2i))^(1/2))*(-exp(a*2i))^(1/2)*2i - x*1i
```

3.190 $\int \frac{\cot(a+i\log(x))}{x}\,dx$

Optimal result 2122
Rubi [A] (verified) 2122
Mathematica [B] (verified) 2123
Maple [A] (verified) 2123
Fricas [A] (verification not implemented) 2123
Sympy [A] (verification not implemented) 2124
Maxima [A] (verification not implemented) 2124
Giac [B] (verification not implemented) 2124
Mupad [B] (verification not implemented) 2125

Optimal result

Integrand size = 13, antiderivative size = 14

$$\int \frac{\cot(a+i\log(x))}{x}\,dx=-i\log(\sin(a+i\log(x)))$$

```
[Out] -I*ln(sin(a+I*ln(x)))
```

Rubi [A] (verified)

Time = 0.01 (sec) , antiderivative size = 14, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.077, Rules used = {3556}

$$\int \frac{\cot(a+i\log(x))}{x}\,dx=-i\log(\sin(a+i\log(x)))$$

```
[In] Int[Cot[a + I*Log[x]]/x,x]
```

```
[Out] (-I)*Log[Sin[a + I*Log[x]]]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\text{Subst}\left(\int \cot(a+ix)\,dx,x,\log(x)\right)\\&=-i\log(\sin(a+i\log(x)))\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 29 vs. 2(14) = 28.

Time = 0.03 (sec) , antiderivative size = 29, normalized size of antiderivative = 2.07

$$\int \frac{\cot(a + i \log(x))}{x} dx = -i \log(\cos(a + i \log(x))) - i \log(\tan(a + i \log(x)))$$

```
[In] Integrate[Cot[a + I*Log[x]]/x,x]
[Out] (-I)*Log[Cos[a + I*Log[x]]] - I*Log[Tan[a + I*Log[x]]]
```

Maple [A] (verified)

Time = 0.62 (sec) , antiderivative size = 17, normalized size of antiderivative = 1.21

method	result	size
derivativedivides	$\frac{i \ln\left(\cot(a+i \ln(x))^2+1\right)}{2}$	17
default	$\frac{i \ln\left(\cot(a+i \ln(x))^2+1\right)}{2}$	17
risch	$-i \ln(x) - 2a - i \ln\left(\frac{e^{2ia}}{x^2} - 1\right)$	25
parallelrisch	$-\frac{i\left(2 \ln(\tan(a+i \ln(x))) - \ln\left(\sec(a+i \ln(x))^2\right)\right)}{2}$	29
norman	$-i \ln(\tan(a + i \ln(x))) + \frac{i \ln\left(1+\tan(a+i \ln(x))^2\right)}{2}$	30

```
[In] int(cot(a+I*ln(x))/x,x,method=_RETURNVERBOSE)
[Out] 1/2*I*ln(cot(a+I*ln(x))^2+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.29

$$\int \frac{\cot(a + i \log(x))}{x} dx = -i \log\left(x^2 - e^{(2i a)}\right) + i \log(x)$$

```
[In] integrate(cot(a+I*log(x))/x,x, algorithm="fricas")
[Out] -I*log(x^2 - e^(2*I*a)) + I*log(x)
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 17, normalized size of antiderivative = 1.21

$$\int \frac{\cot(a + i\log(x))}{x} \, dx = i\log(x) - i\log(x^2 - e^{2ia})$$

```
[In] integrate(cot(a+I*ln(x))/x,x)
[Out] I*log(x) - I*log(x**2 - exp(2*I*a))
```

Maxima [A] (verification not implemented)

none

Time = 0.20 (sec) , antiderivative size = 10, normalized size of antiderivative = 0.71

$$\int \frac{\cot(a + i\log(x))}{x} \, dx = -i \log(\sin(a + i \log(x)))$$

```
[In] integrate(cot(a+I*log(x))/x,x, algorithm="maxima")
[Out] -I*log(sin(a + I*log(x)))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 75 vs. 2(10) = 20.

Time = 0.27 (sec) , antiderivative size = 75, normalized size of antiderivative = 5.36

$$\int \frac{\cot(a + i\log(x))}{x} \, dx = -i \log\left(\frac{1}{2}\sqrt{\frac{1}{2}}\sqrt{\left(\frac{\left(|x|^2+1\right)^2}{|x|^2} - \frac{\left(|x|^2-1\right)^2}{|x|^2}\right)\cos(\pi\mathrm{sgn}(x) + 2a) + \frac{\left(|x|^2+1\right)^2}{|x|^2} + \frac{\left(|x|^2-1\right)^2}{|x|^2}}\right)$$

```
[In] integrate(cot(a+I*log(x))/x,x, algorithm="giac")
[Out] -I*log(1/2*sqrt(1/2)*sqrt(((abs(x)^2 + 1)^2/abs(x)^2 - (abs(x)^2 - 1)^2/abs
(x)^2)*cos(pi*sgn(x) + 2*a) + (abs(x)^2 + 1)^2/abs(x)^2 + (abs(x)^2 - 1)^2/
abs(x)^2))
```

Mupad [B] (verification not implemented)

Time = 27.85 (sec) , antiderivative size = 21, normalized size of antiderivative = 1.50

$$\int \frac{\cot(a+i\log(x))}{x}\,dx = -\ln\left(x^2-\mathrm{e}^{a\,2\mathrm{i}}\right)\,1\mathrm{i}+\ln\left(x\right)\,1\mathrm{i}$$

```
[In] int(cot(a + log(x)*1i)/x,x)
[Out] log(x)*1i - log(x^2 - exp(a*2i))*1i
```

3.191 $\int \frac{\cot(a+i\log(x))}{x^2}\,dx$

Optimal result 2126
Rubi [A] (verified) 2126
Mathematica [A] (verified) 2127
Maple [A] (verified) 2128
Fricas [A] (verification not implemented) 2128
Sympy [A] (verification not implemented) 2128
Maxima [B] (verification not implemented) 2128
Giac [A] (verification not implemented) 2129
Mupad [B] (verification not implemented) 2129

Optimal result

Integrand size = 13, antiderivative size = 29

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = -\frac{i}{x}+2ie^{-ia}\text{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -I/x+2*I*arctanh(x/exp(I*a))/exp(I*a)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.308, Rules used = {4592, 456, 464, 213}

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = 2ie^{-ia}\text{arctanh}\left(e^{-ia}x\right)-\frac{i}{x}$$

```
[In] Int[Cot[a + I*Log[x]]/x^2,x]
```

```
[Out] (-I)/x + ((2*I)*ArcTanh[x/E^(I*a)])/E^(I*a)
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
```

```
n]
```

Rule 464

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[c*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))),
 x] + Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(a*e^n*(m + 1)), Int[(e*
x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, p}, x] && NeQ[b*c
 - a*d, 0] && (IntegerQ[n] || GtQ[e, 0]) && ((GtQ[n, 0] && LtQ[m, -1]) || (
LtQ[n, 0] && GtQ[m + n, -1])) &&  !ILtQ[p, -1]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{-i-\frac{ie^{2ia}}{x^2}}{\left(1-\frac{e^{2ia}}{x^2}\right)x^2}\,dx\\
&= \int \frac{-ie^{2ia}-ix^2}{x^2\left(-e^{2ia}+x^2\right)}\,dx\\
&= -\frac{i}{x}-2i\int \frac{1}{-e^{2ia}+x^2}\,dx\\
&= -\frac{i}{x}+2ie^{-ia}\operatorname{arctanh}\left(e^{-ia}x\right)
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.03 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.52

$$
\int \frac{\cot(a+i\log(x))}{x^2}\,dx = -\frac{i}{x}+2i\operatorname{arctanh}(x\cos(a)-ix\sin(a))\cos(a) + 2\operatorname{arctanh}(x\cos(a)-ix\sin(a))\sin(a)
$$

```
[In] Integrate[Cot[a + I*Log[x]]/x^2,x]
```

```
[Out] (-I)/x + (2*I)*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Cos[a] + 2*ArcTanh[x*Cos[a] -
 I*x*Sin[a]]*Sin[a]
```

Maple [A] (verified)

Time = 0.20 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.83

method	result	size
risch	$-\frac{i}{x}+2i\,\operatorname{arctanh}\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{-ia}$	24

```
[In] int(cot(a+I*ln(x))/x^2,x,method=_RETURNVERBOSE)
[Out] -I/x+2*I*arctanh(x*exp(-I*a))*exp(-I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 36, normalized size of antiderivative = 1.24

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = \frac{i\,xe^{(-i\,a)}\log\left(x+e^{(i\,a)}\right)-i\,xe^{(-i\,a)}\log\left(x-e^{(i\,a)}\right)-i}{x}$$

```
[In] integrate(cot(a+I*log(x))/x^2,x, algorithm="fricas")
[Out] (I*x*e^(-I*a)*log(x + e^(I*a)) - I*x*e^(-I*a)*log(x - e^(I*a)) - I)/x
```

Sympy [A] (verification not implemented)

Time = 0.13 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.00

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = -\left(i\log\left(x-e^{ia}\right)-i\log\left(x+e^{ia}\right)\right)e^{-ia}-\frac{i}{x}$$

```
[In] integrate(cot(a+I*ln(x))/x**2,x)
[Out] -(I*log(x - exp(I*a)) - I*log(x + exp(I*a)))*exp(-I*a) - I/x
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 99 vs. 2(19) = 38.

Time = 0.25 (sec) , antiderivative size = 99, normalized size of antiderivative = 3.41

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx$$

$$= \frac{x(i\cos(a)+\sin(a))\log\left(x^2+2\,x\cos(a)+\cos(a)^2+\sin(a)^2\right)+x(-i\cos(a)-\sin(a))\log\left(x^2-2\,x\cos(a\right.}{}$$

```
[In] integrate(cot(a+I*log(x))/x^2,x, algorithm="maxima")
```

```
[Out] 1/2*(x*(I*cos(a) + sin(a))*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2) + x*
(-I*cos(a) - sin(a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2) - 2*((cos(
a) - I*sin(a))*arctan2(sin(a), x + cos(a)) + (cos(a) - I*sin(a))*arctan2(si
n(a), x - cos(a)))*x - 2*I)/x
```

Giac [A] (verification not implemented)

none

Time = 0.29 (sec) , antiderivative size = 34, normalized size of antiderivative = 1.17

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = i\,e^{(-i\,a)}\log\left(x+e^{(i\,a)}\right) - i\,e^{(-i\,a)}\log\left(-x+e^{(i\,a)}\right) - \frac{i}{x}$$

```
[In] integrate(cot(a+I*log(x))/x^2,x, algorithm="giac")
```

```
[Out] I*e^(-I*a)*log(x + e^(I*a)) - I*e^(-I*a)*log(-x + e^(I*a)) - I/x
```

Mupad [B] (verification not implemented)

Time = 26.99 (sec) , antiderivative size = 31, normalized size of antiderivative = 1.07

$$\int \frac{\cot(a+i\log(x))}{x^2}\,dx = -\frac{\mathrm{atan}\left(\frac{x}{\sqrt{-\mathrm{e}^{a\,2\mathrm{i}}}}\right)\,2\mathrm{i}}{\sqrt{-\mathrm{e}^{a\,2\mathrm{i}}}} - \frac{1\mathrm{i}}{x}$$

```
[In] int(cot(a + log(x)*1i)/x^2,x)
```

```
[Out] - (atan(x/(-exp(a*2i))^(1/2))*2i)/(-exp(a*2i))^(1/2) - 1i/x
```

3.192 $\int \frac{\cot(a+i\log(x))}{x^3}\,dx$

Optimal result 2130
Rubi [A] (verified) 2130
Mathematica [B] (verified) 2131
Maple [A] (verified) 2132
Fricas [A] (verification not implemented) 2132
Sympy [A] (verification not implemented) 2132
Maxima [B] (verification not implemented) 2132
Giac [B] (verification not implemented) 2133
Mupad [B] (verification not implemented) 2133

Optimal result

Integrand size = 13, antiderivative size = 36

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx=-\frac{i}{2x^2}-ie^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right)$$

```
[Out] -1/2*I/x^2-I*ln(1-exp(2*I*a)/x^2)/exp(2*I*a)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 36, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4592, 455, 45}

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx=-ie^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right)-\frac{i}{2x^2}$$

```
[In] Int[Cot[a + I*Log[x]]/x^3,x]
```

```
[Out] (-1/2*I)/x^2 - (I*Log[1 - E^((2*I)*a)/x^2])/E^((2*I)*a)
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \int \frac{-i-\frac{ie^{2ia}}{x^2}}{\left(1-\frac{e^{2ia}}{x^2}\right)x^3}\,dx\\ &= -\left(\frac{1}{2}\text{Subst}\left(\int \frac{-i-ie^{2ia}x}{1-e^{2ia}x}\,dx,x,\frac{1}{x^2}\right)\right)\\ &= -\left(\frac{1}{2}\text{Subst}\left(\int \left(i+\frac{2i}{-1+e^{2ia}x}\right)dx,x,\frac{1}{x^2}\right)\right)\\ &= -\frac{i}{2x^2}-ie^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right)\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 136 vs. 2(36) = 72.

Time = 0.05 (sec) , antiderivative size = 136, normalized size of antiderivative = 3.78

$$\begin{aligned}\int \frac{\cot(a+i\log(x))}{x^3}\,dx = &-\frac{i}{2x^2}-\arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\cos(2a)\\ &+2i\cos(2a)\log(x)-\frac{1}{2}i\cos(2a)\log\left(1+x^4-2x^2\cos(2a)\right)\\ &+i\arctan\left(\frac{(-1+x^2)\cos(a)}{-\sin(a)-x^2\sin(a)}\right)\sin(2a)\\ &+2\log(x)\sin(2a)-\frac{1}{2}\log\left(1+x^4-2x^2\cos(2a)\right)\sin(2a)\end{aligned}$$

```
[In] Integrate[Cot[a + I*Log[x]]/x^3,x]
[Out] (-1/2*I)/x^2 - ArcTan[((-1 + x^2)*Cos[a])/(-Sin[a] - x^2*Sin[a])]*Cos[2*a]
+ (2*I)*Cos[2*a]*Log[x] - (I/2)*Cos[2*a]*Log[1 + x^4 - 2*x^2*Cos[2*a]] + I*
ArcTan[((-1 + x^2)*Cos[a])/(-Sin[a] - x^2*Sin[a])]*Sin[2*a] + 2*Log[x]*Sin[
2*a] - (Log[1 + x^4 - 2*x^2*Cos[2*a]]*Sin[2*a])/2
```

Maple [A] (verified)

Time = 0.21 (sec) , antiderivative size = 38, normalized size of antiderivative = 1.06

method	result	size
risch	$-\frac{i}{2x^{2}}-i\mathrm{e}^{-2ia}\ln\left(\mathrm{e}^{2ia}-x^{2}\right)+2i\mathrm{e}^{-2ia}\ln\left(x\right)$	38

```
[In] int(cot(a+I*ln(x))/x^3,x,method=_RETURNVERBOSE)
[Out] -1/2*I/x^2-I*exp(-2*I*a)*ln(exp(2*I*a)-x^2)+2*I*exp(-2*I*a)*ln(x)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.08

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx=\frac{\left(-2i\,x^{2}\log\left(x^{2}-e^{(2i\,a)}\right)+4i\,x^{2}\log\left(x\right)-i\,e^{(2i\,a)}\right)e^{(-2i\,a)}}{2\,x^{2}}$$

```
[In] integrate(cot(a+I*log(x))/x^3,x, algorithm="fricas")
[Out] 1/2*(-2*I*x^2*log(x^2 - e^(2*I*a)) + 4*I*x^2*log(x) - I*e^(2*I*a))*e^(-2*I*
a)/x^2
```

Sympy [A] (verification not implemented)

Time = 0.20 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.08

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx=2ie^{-2ia}\log\left(x\right)-ie^{-2ia}\log\left(x^{2}-e^{2ia}\right)-\frac{i}{2x^{2}}$$

```
[In] integrate(cot(a+I*ln(x))/x**3,x)
[Out] 2*I*exp(-2*I*a)*log(x) - I*exp(-2*I*a)*log(x**2 - exp(2*I*a)) - I/(2*x**2)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 135 vs. 2(24) = 48.

Time = 0.21 (sec) , antiderivative size = 135, normalized size of antiderivative = 3.75

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx=$$
$$-\frac{x^{2}(i\,\cos\left(2\,a\right)+\sin\left(2\,a\right))\log\left(x^{2}+2\,x\cos\left(a\right)+\cos\left(a\right)^{2}+\sin\left(a\right)^{2}\right)+x^{2}(i\,\cos\left(2\,a\right)+\sin\left(2\,a\right))\log\left(x^{2}-\right.}{}$$

```
[In] integrate(cot(a+I*log(x))/x^3,x, algorithm="maxima")
```

```
[Out] -1/2*(x^2*(I*cos(2*a) + sin(2*a))*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^
2) + x^2*(I*cos(2*a) + sin(2*a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2
) - 2*((cos(2*a) - I*sin(2*a))*arctan2(sin(a), x + cos(a)) - (cos(2*a) - I*
sin(2*a))*arctan2(sin(a), x - cos(a)) + 2*(I*cos(2*a) + sin(2*a))*log(x))*x
^2 + I)/x^2
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 49 vs. $2(24) = 48$.

Time = 0.27 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.36

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx = \frac{1}{2}\,\pi e^{(-2i\,a)} - i\,e^{(-2i\,a)}\log\left(x+e^{(i\,a)}\right) + 2i\,e^{(-2i\,a)}\log\left(x\right) - i\,e^{(-2i\,a)}\log\left(-x+e^{(i\,a)}\right) - \frac{i}{2\,x^2}$$

```
[In] integrate(cot(a+I*log(x))/x^3,x, algorithm="giac")
```

```
[Out] 1/2*pi*e^(-2*I*a) - I*e^(-2*I*a)*log(x + e^(I*a)) + 2*I*e^(-2*I*a)*log(x) -
 I*e^(-2*I*a)*log(-x + e^(I*a)) - 1/2*I/x^2
```

Mupad [B] (verification not implemented)

Time = 27.46 (sec) , antiderivative size = 37, normalized size of antiderivative = 1.03

$$\int \frac{\cot(a+i\log(x))}{x^3}\,dx = \mathrm{e}^{-a\,2\mathrm{i}}\,\ln\left(x\right)\,2\mathrm{i} - \ln\left(x^2-\mathrm{e}^{a\,2\mathrm{i}}\right)\,\mathrm{e}^{-a\,2\mathrm{i}}\,1\mathrm{i} - \frac{1\mathrm{i}}{2\,x^2}$$

```
[In] int(cot(a + log(x)*1i)/x^3,x)
```

```
[Out] exp(-a*2i)*log(x)*2i - log(x^2 - exp(a*2i))*exp(-a*2i)*1i - 1i/(2*x^2)
```

3.193 $\int \frac{\cot(a+i\log(x))}{x^4}\,dx$

Optimal result 2134
Rubi [A] (verified) 2134
Mathematica [A] (verified) 2136
Maple [A] (verified) 2136
Fricas [A] (verification not implemented) 2136
Sympy [A] (verification not implemented) 2137
Maxima [B] (verification not implemented) 2137
Giac [A] (verification not implemented) 2137
Mupad [B] (verification not implemented) 2138

Optimal result

Integrand size = 13, antiderivative size = 45

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = -\frac{i}{3x^3} - \frac{2ie^{-2ia}}{x} + 2ie^{-3ia}\operatorname{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -1/3*I/x^3-2*I/exp(2*I*a)/x+2*I*arctanh(x/exp(I*a))/exp(3*I*a)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 45, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.385$, Rules used = {4592, 456, 464, 331, 213}

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = 2ie^{-3ia}\operatorname{arctanh}\left(e^{-ia}x\right) - \frac{2ie^{-2ia}}{x} - \frac{i}{3x^3}$$

```
[In] Int[Cot[a + I*Log[x]]/x^4,x]
```

```
[Out] (-1/3*I)/x^3 - (2*I)/(E^((2*I)*a)*x) + ((2*I)*ArcTanh[x/E^(I*a)])/E^((3*I)*
a)
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 331

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*x
)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] - Dist[b*((m + n*(p + 1)
```

```
+ 1)/(a*c^n*(m + 1))), Int[(c*x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a,
 b, c, p}, x] && IGtQ[n, 0] && LtQ[m, -1] && IntBinomialQ[a, b, c, n, m, p,
 x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 464

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[c*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))),
 x] + Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(a*e^n*(m + 1)), Int[(e*
x)^(m + n)*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, p}, x] && NeQ[b*c
 - a*d, 0] && (IntegerQ[n] || GtQ[e, 0]) && ((GtQ[n, 0] && LtQ[m, -1]) || (
LtQ[n, 0] && GtQ[m + n, -1])) &&  !ILtQ[p, -1]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{-i-\frac{ie^{2ia}}{x^2}}{\left(1-\frac{e^{2ia}}{x^2}\right)x^4}\,dx \\
&= \int \frac{-ie^{2ia}-ix^2}{x^4\left(-e^{2ia}+x^2\right)}\,dx \\
&= -\frac{i}{3x^3}-2i\int \frac{1}{x^2\left(-e^{2ia}+x^2\right)}\,dx \\
&= -\frac{i}{3x^3}-\frac{2ie^{-2ia}}{x}-\left(2ie^{-2ia}\right)\int \frac{1}{-e^{2ia}+x^2}\,dx \\
&= -\frac{i}{3x^3}-\frac{2ie^{-2ia}}{x}+2ie^{-3ia}\operatorname{arctanh}\left(e^{-ia}x\right)
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.56

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = -\frac{i}{3x^3}-\frac{2i\cos(2a)}{x}+2i\text{arctanh}(x\cos(a)-ix\sin(a))\cos(3a) -\frac{2\sin(2a)}{x}+2\text{arctanh}(x\cos(a)-ix\sin(a))\sin(3a)$$

```
[In] Integrate[Cot[a + I*Log[x]]/x^4,x]
```

```
[Out] (-1/3*I)/x^3 - ((2*I)*Cos[2*a])/x + (2*I)*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Co
s[3*a] - (2*Sin[2*a])/x + 2*ArcTanh[x*Cos[a] - I*x*Sin[a]]*Sin[3*a]
```

Maple [A] (verified)

Time = 0.22 (sec) , antiderivative size = 35, normalized size of antiderivative = 0.78

method	result	size
risch	$-\frac{i}{3x^3}+2i\,\text{arctanh}\left(x\,\mathrm{e}^{-ia}\right)\mathrm{e}^{-3ia}-\frac{2i\mathrm{e}^{-2ia}}{x}$	35

```
[In] int(cot(a+I*ln(x))/x^4,x,method=_RETURNVERBOSE)
```

```
[Out] -1/3*I/x^3+2*I*arctanh(x*exp(-I*a))*exp(-3*I*a)-2*I*exp(-2*I*a)/x
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.22

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = \frac{\left(3i\,x^3e^{(-i\,a)}\log\left(x+e^{(i\,a)}\right)-3i\,x^3e^{(-i\,a)}\log\left(x-e^{(i\,a)}\right)-6i\,x^2-i\,e^{(2i\,a)}\right)e^{(-2i\,a)}}{3\,x^3}$$

```
[In] integrate(cot(a+I*log(x))/x^4,x, algorithm="fricas")
```

```
[Out] 1/3*(3*I*x^3*e^(-I*a)*log(x + e^(I*a)) - 3*I*x^3*e^(-I*a)*log(x - e^(I*a))
- 6*I*x^2 - I*e^(2*I*a))*e^(-2*I*a)/x^3
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.20

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = -\left(i\log\left(x-e^{ia}\right)-i\log\left(x+e^{ia}\right)\right)e^{-3ia}-\frac{\left(6ix^2+ie^{2ia}\right)e^{-2ia}}{3x^3}$$

```
[In] integrate(cot(a+I*ln(x))/x**4,x)
```

```
[Out] -(I*log(x - exp(I*a)) - I*log(x + exp(I*a)))*exp(-3*I*a) - (6*I*x**2 + I*ex
p(2*I*a))*exp(-2*I*a)/(3*x**3)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 139 vs. 2(28) = 56.

Time = 0.21 (sec) , antiderivative size = 139, normalized size of antiderivative = 3.09

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = -\frac{3\,x^3(-i\,\cos(3\,a)-\sin(3\,a))\log\left(x^2+2\,x\cos(a)+\cos(a)^2+\sin(a)^2\right)+3\,x^3(i\,\cos(3\,a)+\sin(3\,a))\log$$

```
[In] integrate(cot(a+I*log(x))/x^4,x, algorithm="maxima")
```

```
[Out] -1/6*(3*x^3*(-I*cos(3*a) - sin(3*a))*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(
a)^2) + 3*x^3*(I*cos(3*a) + sin(3*a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin
(a)^2) + 6*((cos(3*a) - I*sin(3*a))*arctan2(sin(a), x + cos(a)) + (cos(3*a)
 - I*sin(3*a))*arctan2(sin(a), x - cos(a)))*x^3 + 12*x^2*(I*cos(2*a) + sin(
2*a)) + 2*I)/x^3
```

Giac [A] (verification not implemented)

none

Time = 0.28 (sec) , antiderivative size = 43, normalized size of antiderivative = 0.96

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = i\,e^{(-3i\,a)}\log\left(x+e^{(i\,a)}\right)-i\,e^{(-3i\,a)}\log\left(-x+e^{(i\,a)}\right)-\frac{2i\,e^{(-2i\,a)}}{x}-\frac{i}{3\,x^3}$$

```
[In] integrate(cot(a+I*log(x))/x^4,x, algorithm="giac")
```

```
[Out] I*e^(-3*I*a)*log(x + e^(I*a)) - I*e^(-3*I*a)*log(-x + e^(I*a)) - 2*I*e^(-2*
I*a)/x - 1/3*I/x^3
```

Mupad [B] (verification not implemented)

Time = 27.51 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.98

$$\int \frac{\cot(a+i\log(x))}{x^4}\,dx = \frac{\operatorname{atan}\left(\frac{x}{\sqrt{-e^{a\,2i}}}\right)\,2i}{\left(-e^{a\,2i}\right)^{3/2}} - \frac{2i\,e^{-a\,2i}\,x^2+\frac{1}{3}i}{x^3}$$

```
[In] int(cot(a + log(x)*1i)/x^4,x)
```

```
[Out] (atan(x/(-exp(a*2i))^(1/2))*2i)/(-exp(a*2i))^(3/2) - (x^2*exp(-a*2i)*2i + 1
i/3)/x^3
```

3.194 $\int x^3 \cot^2(a+i\log(x))\,dx$

Optimal result 2139
Rubi [A] (verified) 2139
Mathematica [B] (verified) 2141
Maple [A] (verified) 2141
Fricas [A] (verification not implemented) 2142
Sympy [A] (verification not implemented) 2142
Maxima [B] (verification not implemented) 2142
Giac [B] (verification not implemented) 2143
Mupad [B] (verification not implemented) 2143

Optimal result

Integrand size = 15, antiderivative size = 67

$$\int x^3 \cot^2(a+i\log(x))\,dx = -2e^{2ia}x^2 - \frac{x^4}{4} - \frac{2e^{6ia}}{e^{2ia}-x^2} - 4e^{4ia}\log\left(e^{2ia}-x^2\right)$$

```
[Out] -2*exp(2*I*a)*x^2-1/4*x^4-2*exp(6*I*a)/(exp(2*I*a)-x^2)-4*exp(4*I*a)*ln(exp
(2*I*a)-x^2)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 67, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4592, 456, 457, 78}

$$\int x^3 \cot^2(a+i\log(x))\,dx = -2e^{2ia}x^2 - \frac{2e^{6ia}}{-x^2+e^{2ia}} - 4e^{4ia}\log\left(-x^2+e^{2ia}\right) - \frac{x^4}{4}$$

```
[In] Int[x^3*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -2*E^((2*I)*a)*x^2 - x^4/4 - (2*E^((6*I)*a))/(E^((2*I)*a) - x^2) - 4*E^((4*
I)*a)*Log[E^((2*I)*a) - x^2]
```

Rule 78

```
Int[((a_.) + (b_.)*(x_))*((c_) + (d_.)*(x_))^(n_.)*((e_.) + (f_.)*(x_))^(p_
.), x_Symbol] :> Int[ExpandIntegrand[(a + b*x)*(c + d*x)^n*(e + f*x)^p, x],
 x] /; FreeQ[{a, b, c, d, e, f, n}, x] && NeQ[b*c - a*d, 0] && ((ILtQ[n, 0]
 && ILtQ[p, 0]) || EqQ[p, 1] || (IGtQ[p, 0] && ( !IntegerQ[n] || LeQ[9*p +
5*(n + 2), 0] || GeQ[n + p + 1, 0] || (GeQ[n + p + 2, 0] && RationalQ[a, b,
 c, d, e, f]))))
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 457

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[x^(Simplify[(m + 1)/n] - 1)*(a + b*x)^p
*(c + d*x)^q, x], x, x^n], x] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[
b*c - a*d, 0] && IntegerQ[Simplify[(m + 1)/n]]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2 x^3}{\left(1-\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x^3\left(-ie^{2ia}-ix^2\right)^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{\left(-ie^{2ia}-ix\right)^2 x}{\left(-e^{2ia}+x\right)^2}\,dx, x, x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-4e^{2ia}-\frac{4e^{6ia}}{\left(e^{2ia}-x\right)^2}+\frac{8e^{4ia}}{e^{2ia}-x}-x\right)\,dx, x, x^2\right) \\
&= -2e^{2ia}x^2-\frac{x^4}{4}-\frac{2e^{6ia}}{e^{2ia}-x^2}-4e^{4ia}\log\left(e^{2ia}-x^2\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 162 vs. 2(67) = 134.

Time = 0.26 (sec) , antiderivative size = 162, normalized size of antiderivative = 2.42

$$\begin{aligned}\int x^3\cot^2(a+i\log(x))\,dx = &-\frac{x^4}{4}-2x^2\cos(2a)+4i\arctan\left(\frac{\cot(a)-x^2\cot(a)}{1+x^2}\right)\cos(4a)\\&-2\cos(4a)\log\left(1+x^4-2x^2\cos(2a)\right)-2ix^2\sin(2a)\\&-4\arctan\left(\frac{\cot(a)-x^2\cot(a)}{1+x^2}\right)\sin(4a)\\&-2i\log\left(1+x^4-2x^2\cos(2a)\right)\sin(4a)\\&+\frac{2\cos(5a)+2i\sin(5a)}{(-1+x^2)\cos(a)-i(1+x^2)\sin(a)}\end{aligned}$$

```
[In] Integrate[x^3*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -1/4*x^4 - 2*x^2*Cos[2*a] + (4*I)*ArcTan[(Cot[a] - x^2*Cot[a])/(1 + x^2)]*C
os[4*a] - 2*Cos[4*a]*Log[1 + x^4 - 2*x^2*Cos[2*a]] - (2*I)*x^2*Sin[2*a] - 4
*ArcTan[(Cot[a] - x^2*Cot[a])/(1 + x^2)]*Sin[4*a] - (2*I)*Log[1 + x^4 - 2*x
^2*Cos[2*a]]*Sin[4*a] + (2*Cos[5*a] + (2*I)*Sin[5*a])/((-1 + x^2)*Cos[a] -
I*(1 + x^2)*Sin[a])
```

Maple [A] (verified)

Time = 1.53 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.81

method	result	size
risch	$-\frac{9x^4}{4}-\frac{2x^4}{\frac{e^{2ia}}{x^2}-1}-4\,e^{2ia}x^2-4\,e^{4ia}\ln\left(e^{2ia}-x^2\right)$	54

```
[In] int(x^3*cot(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -9/4*x^4-2*x^4/(exp(2*I*a)/x^2-1)-4*exp(2*I*a)*x^2-4*exp(4*I*a)*ln(exp(2*I*
a)-x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.04

$$\int x^3 \cot^2(a + i\log(x))\,dx = -\frac{x^6 + 7\,x^4 e^{(2i\,a)} - 8\,x^2 e^{(4i\,a)} + 16\left(x^2 e^{(4i\,a)} - e^{(6i\,a)}\right)\log\left(x^2 - e^{(2i\,a)}\right) - 8\,e^{(6i\,a)}}{4\left(x^2 - e^{(2i\,a)}\right)}$$

```
[In] integrate(x^3*cot(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/4*(x^6 + 7*x^4*e^(2*I*a) - 8*x^2*e^(4*I*a) + 16*(x^2*e^(4*I*a) - e^(6*I*
a))*log(x^2 - e^(2*I*a)) - 8*e^(6*I*a))/(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.17 (sec) , antiderivative size = 54, normalized size of antiderivative = 0.81

$$\int x^3 \cot^2(a + i\log(x))\,dx = -\frac{x^4}{4} - 2x^2e^{2ia} - 4e^{4ia}\log\left(x^2 - e^{2ia}\right) + \frac{2e^{6ia}}{x^2 - e^{2ia}}$$

```
[In] integrate(x**3*cot(a+I*ln(x))**2,x)
```

```
[Out] -x**4/4 - 2*x**2*exp(2*I*a) - 4*exp(4*I*a)*log(x**2 - exp(2*I*a)) + 2*exp(6
*I*a)/(x**2 - exp(2*I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 345 vs. 2(50) = 100.

Time = 0.20 (sec) , antiderivative size = 345, normalized size of antiderivative = 5.15

$$\int x^3 \cot^2(a + i\log(x))\,dx =$$

$$-\frac{x^6 + 7\,x^4(\cos(2\,a) + i\,\sin(2\,a)) - 8\,(2\,(-i\,\cos(4\,a) + \sin(4\,a))\arctan(\sin(a)\,, x + \cos(a)) + 2\,(i\,\cos(4}{}$$

```
[In] integrate(x^3*cot(a+I*log(x))^2,x, algorithm="maxima")
```

```
[Out] -1/4*(x^6 + 7*x^4*(cos(2*a) + I*sin(2*a)) - 8*(2*(-I*cos(4*a) + sin(4*a))*a
rctan2(sin(a), x + cos(a)) + 2*(I*cos(4*a) - sin(4*a))*arctan2(sin(a), x -
cos(a)) + cos(4*a) + I*sin(4*a))*x^2 - 16*((I*cos(2*a) - sin(2*a))*cos(4*a)
 - (cos(2*a) + I*sin(2*a))*sin(4*a))*arctan2(sin(a), x + cos(a)) - 16*((-I*
```

```
cos(2*a) + sin(2*a))*cos(4*a) + (cos(2*a) + I*sin(2*a))*sin(4*a))*arctan2(s
in(a), x - cos(a)) + 8*(x^2*(cos(4*a) + I*sin(4*a)) - (cos(2*a) + I*sin(2*a
))*cos(4*a) - (I*cos(2*a) - sin(2*a))*sin(4*a))*log(x^2 + 2*x*cos(a) + cos(
a)^2 + sin(a)^2) + 8*(x^2*(cos(4*a) + I*sin(4*a)) - (cos(2*a) + I*sin(2*a))
*cos(4*a) - (I*cos(2*a) - sin(2*a))*sin(4*a))*log(x^2 - 2*x*cos(a) + cos(a)
^2 + sin(a)^2) - 8*cos(6*a) - 8*I*sin(6*a))/(x^2 - cos(2*a) - I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 139 vs. $2(50) = 100$.

Time = 0.31 (sec) , antiderivative size = 139, normalized size of antiderivative = 2.07

$$\int x^3 \cot^2(a + i\log(x))\,dx = -\frac{x^6}{4\,(x^2 - e^{(2i\,a)})} - \frac{7\,x^4 e^{(2i\,a)}}{4\,(x^2 - e^{(2i\,a)})} - \frac{4\,x^2 e^{(4i\,a)} \log\left(-x^2 + e^{(2i\,a)}\right)}{x^2 - e^{(2i\,a)}} + \frac{2\,x^2 e^{(4i\,a)}}{x^2 - e^{(2i\,a)}} + \frac{4\,e^{(6i\,a)} \log\left(-x^2 + e^{(2i\,a)}\right)}{x^2 - e^{(2i\,a)}} + \frac{2\,e^{(6i\,a)}}{x^2 - e^{(2i\,a)}}$$

```
[In] integrate(x^3*cot(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/4*x^6/(x^2 - e^(2*I*a)) - 7/4*x^4*e^(2*I*a)/(x^2 - e^(2*I*a)) - 4*x^2*e^
(4*I*a)*log(-x^2 + e^(2*I*a))/(x^2 - e^(2*I*a)) + 2*x^2*e^(4*I*a)/(x^2 - e^
(2*I*a)) + 4*e^(6*I*a)*log(-x^2 + e^(2*I*a))/(x^2 - e^(2*I*a)) + 2*e^(6*I*a
)/(x^2 - e^(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 28.03 (sec) , antiderivative size = 55, normalized size of antiderivative = 0.82

$$\int x^3 \cot^2(a + i\log(x))\,dx = -2\,x^2\,\mathrm{e}^{a\,2\mathrm{i}} - \frac{2\,\mathrm{e}^{a\,6\mathrm{i}}}{\mathrm{e}^{a\,2\mathrm{i}} - x^2} - 4\,\ln\left(x^2 - \mathrm{e}^{a\,2\mathrm{i}}\right)\,\mathrm{e}^{a\,4\mathrm{i}} - \frac{x^4}{4}$$

```
[In] int(x^3*cot(a + log(x)*1i)^2,x)
```

```
[Out] - 2*x^2*exp(a*2i) - (2*exp(a*6i))/(exp(a*2i) - x^2) - 4*log(x^2 - exp(a*2i)
)*exp(a*4i) - x^4/4
```

3.195 $\int x^2 \cot^2(a + i \log(x)) \, dx$

Optimal result 2144
Rubi [A] (verified) 2144
Mathematica [A] (verified) 2146
Maple [A] (verified) 2146
Fricas [B] (verification not implemented) 2147
Sympy [A] (verification not implemented) 2147
Maxima [B] (verification not implemented) 2147
Giac [A] (verification not implemented) 2148
Mupad [B] (verification not implemented) 2148

Optimal result

Integrand size = 15, antiderivative size = 64

$$\int x^2 \cot^2(a + i \log(x)) \, dx = -6e^{2ia}x - \frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia} - x^2} + 6e^{3ia}\text{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -6*exp(2*I*a)*x-1/3*x^3-2*exp(2*I*a)*x^3/(exp(2*I*a)-x^2)+6*exp(3*I*a)*arct
anh(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 64, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}} = 0.400$, Rules used = {4592, 456, 474, 470, 327, 213}

$$\int x^2 \cot^2(a + i \log(x)) \, dx = 6e^{3ia}\text{arctanh}\left(e^{-ia}x\right) - \frac{2e^{2ia}x^3}{-x^2 + e^{2ia}} - 6e^{2ia}x - \frac{x^3}{3}$$

```
[In] Int[x^2*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -6*E^((2*I)*a)*x - x^3/3 - (2*E^((2*I)*a)*x^3)/(E^((2*I)*a) - x^2) + 6*E^((
3*I)*a)*ArcTanh[x/E^(I*a)]
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 327

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(n
 - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*(m + n*p + 1))), x] - Dist[
```

```
a*c^n*((m - n + 1)/(b*(m + n*p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^p, x],
 x] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && GtQ[m, n - 1] && NeQ[m + n*p
 + 1, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 474

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^2, x_Symbol] :> Simp[(-(b*c - a*d)^2)*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)
/(a*b^2*e*n*(p + 1))), x] + Dist[1/(a*b^2*n*(p + 1)), Int[(e*x)^m*(a + b*x^
n)^(p + 1)*Simp[(b*c - a*d)^2*(m + 1) + b^2*c^2*n*(p + 1) + a*b*d^2*n*(p +
1)*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0]
&& IGtQ[n, 0] && LtQ[p, -1]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2 x^2}{\left(1-\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x^2\left(-ie^{2ia}-ix^2\right)^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= -\frac{2e^{2ia}x^3}{e^{2ia}-x^2}+\frac{1}{2}e^{-2ia}\int \frac{x^2\left(-10e^{4ia}-2e^{2ia}x^2\right)}{-e^{2ia}+x^2}\,dx
\end{aligned}
$$

$$= -\frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia} - x^2} - \left(6e^{2ia}\right)\int \frac{x^2}{-e^{2ia} + x^2}\,dx$$

$$= -6e^{2ia}x - \frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia} - x^2} - \left(6e^{4ia}\right)\int \frac{1}{-e^{2ia} + x^2}\,dx$$

$$= -6e^{2ia}x - \frac{x^3}{3} - \frac{2e^{2ia}x^3}{e^{2ia} - x^2} + 6e^{3ia}\text{arctanh}\left(e^{-ia}x\right)$$

Mathematica [A] (verified)

Time = 0.13 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.56

$$\int x^2 \cot^2(a + i\log(x))\,dx = -\frac{x^3}{3} - 4x\cos(2a) + 6\text{arctanh}(x(\cos(a) - i\sin(a)))\cos(3a) - 4ix\sin(2a) + \frac{2x(\cos(3a) + i\sin(3a))}{(-1 + x^2)\cos(a) - i\,(1 + x^2)\sin(a)} + 6i\text{arctanh}(x(\cos(a) - i\sin(a)))\sin(3a)$$

```
[In] Integrate[x^2*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -1/3*x^3 - 4*x*Cos[2*a] + 6*ArcTanh[x*(Cos[a] - I*Sin[a])]*Cos[3*a] - (4*I)
*x*Sin[2*a] + (2*x*(Cos[3*a] + I*Sin[3*a]))/((-1 + x^2)*Cos[a] - I*(1 + x^2
)*Sin[a]) + (6*I)*ArcTanh[x*(Cos[a] - I*Sin[a])]*Sin[3*a]
```

Maple [A] (verified)

Time = 1.07 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.75

method	result	size
risch	$-\frac{7x^3}{3} - \frac{2x^3}{\frac{e^{2ia}}{x^2} - 1} - 6\,e^{2ia}x + 6\,\operatorname{arctanh}\left(x\,e^{-ia}\right)e^{3ia}$	48

```
[In] int(x^2*cot(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -7/3*x^3-2*x^3/(exp(2*I*a)/x^2-1)-6*exp(2*I*a)*x+6*arctanh(x*exp(-I*a))*exp
(3*I*a)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 102 vs. $2(47) = 94$.

Time = 0.24 (sec) , antiderivative size = 102, normalized size of antiderivative = 1.59

$$\int x^2 \cot^2(a + i\log(x))\,dx = -\frac{x^5 + 11\,x^3 e^{(2i\,a)} - 9\,\left(x^2 - e^{(2i\,a)}\right)e^{(3i\,a)}\log\left(\left(xe^{(2i\,a)} + e^{(3i\,a)}\right)e^{(-2i\,a)}\right) + 9\,\left(x^2 - e^{(2i\,a)}\right)e^{(3i\,a)}\log\left(\left(xe^{(2i\,a)}\right.\right.}{3\,\left(x^2 - e^{(2i\,a)}\right)}$$

```
[In] integrate(x^2*cot(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/3*(x^5 + 11*x^3*e^(2*I*a) - 9*(x^2 - e^(2*I*a))*e^(3*I*a)*log((x*e^(2*I*
a) + e^(3*I*a))*e^(-2*I*a)) + 9*(x^2 - e^(2*I*a))*e^(3*I*a)*log((x*e^(2*I*a
) - e^(3*I*a))*e^(-2*I*a)) - 18*x*e^(4*I*a))/(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.18 (sec) , antiderivative size = 60, normalized size of antiderivative = 0.94

$$\int x^2 \cot^2(a + i\log(x))\,dx = -\frac{x^3}{3} - 4xe^{2ia} + \frac{2xe^{4ia}}{x^2 - e^{2ia}} - 3\left(\log\left(x - e^{ia}\right) - \log\left(x + e^{ia}\right)\right)e^{3ia}$$

```
[In] integrate(x**2*cot(a+I*ln(x))**2,x)
```

```
[Out] -x**3/3 - 4*x*exp(2*I*a) + 2*x*exp(4*I*a)/(x**2 - exp(2*I*a)) - 3*(log(x -
exp(I*a)) - log(x + exp(I*a)))*exp(3*I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 335 vs. $2(47) = 94$.

Time = 0.22 (sec) , antiderivative size = 335, normalized size of antiderivative = 5.23

$$\int x^2 \cot^2(a + i\log(x))\,dx = -\frac{2\,x^5 + 22\,x^3(\cos(2\,a) + i\,\sin(2\,a)) + 18\,((-i\,\cos(3\,a) + \sin(3\,a))\arctan(\sin(a), x + \cos(a)) + (-i\,\cos}{}$$

```
[In] integrate(x^2*cot(a+I*log(x))^2,x, algorithm="maxima")
```

```
[Out] -1/6*(2*x^5 + 22*x^3*(cos(2*a) + I*sin(2*a)) + 18*((-I*cos(3*a) + sin(3*a))
*arctan2(sin(a), x + cos(a)) + (-I*cos(3*a) + sin(3*a))*arctan2(sin(a), x -
```

```
 cos(a)))*x^2 - 36*x*(cos(4*a) + I*sin(4*a)) + 18*((I*cos(2*a) - sin(2*a))*
cos(3*a) - (cos(2*a) + I*sin(2*a))*sin(3*a))*arctan2(sin(a), x + cos(a)) +
18*((I*cos(2*a) - sin(2*a))*cos(3*a) - (cos(2*a) + I*sin(2*a))*sin(3*a))*ar
ctan2(sin(a), x - cos(a)) - 9*(x^2*(cos(3*a) + I*sin(3*a)) - (cos(2*a) + I*
sin(2*a))*cos(3*a) - (I*cos(2*a) - sin(2*a))*sin(3*a))*log(x^2 + 2*x*cos(a)
 + cos(a)^2 + sin(a)^2) + 9*(x^2*(cos(3*a) + I*sin(3*a)) - (cos(2*a) + I*si
n(2*a))*cos(3*a) + (-I*cos(2*a) + sin(2*a))*sin(3*a))*log(x^2 - 2*x*cos(a)
+ cos(a)^2 + sin(a)^2))/(x^2 - cos(2*a) - I*sin(2*a))
```

Giac [A] (verification not implemented)

none

Time = 0.31 (sec) , antiderivative size = 83, normalized size of antiderivative = 1.30

$$\int x^2 \cot^2(a+i\log(x))\,dx = -\frac{x^5}{3\,(x^2-e^{(2i\,a)})} - \frac{11\,x^3 e^{(2i\,a)}}{3\,(x^2-e^{(2i\,a)})} - \frac{6\,\arctan\left(\frac{x}{\sqrt{-e^{(2i\,a)}}}\right)e^{(4i\,a)}}{\sqrt{-e^{(2i\,a)}}} + \frac{10\,xe^{(4i\,a)}}{x^2-e^{(2i\,a)}}$$

```
[In] integrate(x^2*cot(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/3*x^5/(x^2 - e^(2*I*a)) - 11/3*x^3*e^(2*I*a)/(x^2 - e^(2*I*a)) - 6*arcta
n(x/sqrt(-e^(2*I*a)))*e^(4*I*a)/sqrt(-e^(2*I*a)) + 10*x*e^(4*I*a)/(x^2 - e^
(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 27.40 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.89

$$\int x^2 \cot^2(a+i\log(x))\,dx = -\left(\mathrm{e}^{a\,2\mathrm{i}}\right)^{3/2}\,\mathrm{atan}\left(\frac{x\,1\mathrm{i}}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)\,6\mathrm{i} - \frac{x^3}{3} - 4\,x\,\mathrm{e}^{a\,2\mathrm{i}} - \frac{2\,x\,\mathrm{e}^{a\,4\mathrm{i}}}{\mathrm{e}^{a\,2\mathrm{i}}-x^2}$$

```
[In] int(x^2*cot(a + log(x)*1i)^2,x)
```

```
[Out] - exp(a*2i)^(3/2)*atan((x*1i)/exp(a*2i)^(1/2))*6i - x^3/3 - 4*x*exp(a*2i) -
 (2*x*exp(a*4i))/(exp(a*2i) - x^2)
```

3.196 $\int x \cot^2(a + i \log(x)) \, dx$

Optimal result 2149
Rubi [A] (verified) 2149
Mathematica [B] (verified) 2150
Maple [A] (verified) 2151
Fricas [A] (verification not implemented) 2151
Sympy [A] (verification not implemented) 2152
Maxima [B] (verification not implemented) 2152
Giac [B] (verification not implemented) 2152
Mupad [B] (verification not implemented) 2153

Optimal result

Integrand size = 13, antiderivative size = 55

$$\int x \cot^2(a + i \log(x)) \, dx = -\frac{x^2}{2} - \frac{2e^{4ia}}{e^{2ia} - x^2} - 2e^{2ia} \log\left(e^{2ia} - x^2\right)$$

```
[Out] -1/2*x^2-2*exp(4*I*a)/(exp(2*I*a)-x^2)-2*exp(2*I*a)*ln(exp(2*I*a)-x^2)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.308, Rules used = {4592, 456, 455, 45}

$$\int x \cot^2(a + i \log(x)) \, dx = -\frac{2e^{4ia}}{-x^2 + e^{2ia}} - 2e^{2ia} \log\left(-x^2 + e^{2ia}\right) - \frac{x^2}{2}$$

```
[In] Int[x*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -1/2*x^2 - (2*E^((4*I)*a))/(E^((2*I)*a) - x^2) - 2*E^((2*I)*a)*Log[E^((2*I)
*a) - x^2]
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2 x}{\left(1-\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{x\left(-ie^{2ia}-ix^2\right)^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{1}{2}\text{Subst}\left(\int \frac{\left(-ie^{2ia}-ix\right)^2}{\left(-e^{2ia}+x\right)^2}\,dx,x,x^2\right) \\
&= \frac{1}{2}\text{Subst}\left(\int \left(-1-\frac{4e^{4ia}}{\left(e^{2ia}-x\right)^2}+\frac{4e^{2ia}}{e^{2ia}-x}\right)\,dx,x,x^2\right) \\
&= -\frac{x^2}{2}-\frac{2e^{4ia}}{e^{2ia}-x^2}-2e^{2ia}\log\left(e^{2ia}-x^2\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 142 vs. $2(55) = 110$.

Time = 0.10 (sec) , antiderivative size = 142, normalized size of antiderivative = 2.58

$$\int x\cot^2(a+i\log(x))\,dx = -\frac{x^2}{2}+2i\arctan\left(\frac{\cot(a)-x^2\cot(a)}{1+x^2}\right)\cos(2a) - \cos(2a)\log\left(1+x^4-2x^2\cos(2a)\right) - 4\arctan\left(\frac{\cot(a)-x^2\cot(a)}{1+x^2}\right)\cos(a)\sin(a) - i\log\left(1+x^4-2x^2\cos(2a)\right)\sin(2a) + \frac{2\cos(3a)+2i\sin(3a)}{(-1+x^2)\cos(a)-i(1+x^2)\sin(a)}$$

```
[In] Integrate[x*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -1/2*x^2 + (2*I)*ArcTan[(Cot[a] - x^2*Cot[a])/(1 + x^2)]*Cos[2*a] - Cos[2*a
]*Log[1 + x^4 - 2*x^2*Cos[2*a]] - 4*ArcTan[(Cot[a] - x^2*Cot[a])/(1 + x^2)]
*Cos[a]*Sin[a] - I*Log[1 + x^4 - 2*x^2*Cos[2*a]]*Sin[2*a] + (2*Cos[3*a] + (
2*I)*Sin[3*a])/((-1 + x^2)*Cos[a] - I*(1 + x^2)*Sin[a])
```

Maple [A] (verified)

Time = 1.03 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.80

method	result	size
risch	$-\frac{5x^2}{2}-\frac{2x^2}{\frac{e^{2ia}}{x^2}-1}-2\,e^{2ia}\ln\left(e^{2ia}-x^2\right)$	44

```
[In] int(x*cot(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -5/2*x^2-2*x^2/(exp(2*I*a)/x^2-1)-2*exp(2*I*a)*ln(exp(2*I*a)-x^2)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 61, normalized size of antiderivative = 1.11

$$\int x\cot^2(a+i\log(x))\,dx = -\frac{x^4-x^2e^{(2ia)}+4\left(x^2e^{(2ia)}-e^{(4ia)}\right)\log\left(x^2-e^{(2ia)}\right)-4\,e^{(4ia)}}{2\left(x^2-e^{(2ia)}\right)}$$

```
[In] integrate(x*cot(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -1/2*(x^4 - x^2*e^(2*I*a) + 4*(x^2*e^(2*I*a) - e^(4*I*a))*log(x^2 - e^(2*I*
a)) - 4*e^(4*I*a))/(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.76

$$\int x\cot^2(a+i\log(x))\,dx = -\frac{x^2}{2} - 2e^{2ia}\log\left(x^2-e^{2ia}\right) + \frac{2e^{4ia}}{x^2-e^{2ia}}$$

```
[In] integrate(x*cot(a+I*ln(x))**2,x)
[Out] -x**2/2 - 2*exp(2*I*a)*log(x**2 - exp(2*I*a)) + 2*exp(4*I*a)/(x**2 - exp(2*
I*a))
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 290 vs. 2(41) = 82.

Time = 0.22 (sec) , antiderivative size = 290, normalized size of antiderivative = 5.27

$$\int x\cot^2(a+i\log(x))\,dx = -\frac{x^4-(4(-i\cos(2a)+\sin(2a))\arctan(\sin(a),x+\cos(a))+4(i\cos(2a)-\sin(2a))\arctan(\sin(a),x}{}$$

```
[In] integrate(x*cot(a+I*log(x))^2,x, algorithm="maxima")
[Out] -1/2*(x^4 - (4*(-I*cos(2*a) + sin(2*a))*arctan2(sin(a), x + cos(a)) + 4*(I*
cos(2*a) - sin(2*a))*arctan2(sin(a), x - cos(a)) + cos(2*a) + I*sin(2*a))*x
^2 - 4*(I*cos(2*a)^2 - 2*cos(2*a)*sin(2*a) - I*sin(2*a)^2)*arctan2(sin(a),
x + cos(a)) - 4*(-I*cos(2*a)^2 + 2*cos(2*a)*sin(2*a) + I*sin(2*a)^2)*arctan
2(sin(a), x - cos(a)) + 2*(x^2*(cos(2*a) + I*sin(2*a)) - cos(2*a)^2 - 2*I*c
os(2*a)*sin(2*a) + sin(2*a)^2)*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2)
+ 2*(x^2*(cos(2*a) + I*sin(2*a)) - cos(2*a)^2 - 2*I*cos(2*a)*sin(2*a) + sin
(2*a)^2)*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2) - 4*cos(4*a) - 4*I*sin
(4*a))/(x^2 - cos(2*a) - I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 118 vs. 2(41) = 82.

Time = 0.31 (sec) , antiderivative size = 118, normalized size of antiderivative = 2.15

$$\int x\cot^2(a+i\log(x))\,dx = -\frac{x^4}{2\left(x^2-e^{(2ia)}\right)} - \frac{2x^2e^{(2ia)}\log\left(-x^2+e^{(2ia)}\right)}{x^2-e^{(2ia)}} + \frac{x^2e^{(2ia)}}{2\left(x^2-e^{(2ia)}\right)} + \frac{2e^{(4ia)}\log\left(-x^2+e^{(2ia)}\right)}{x^2-e^{(2ia)}} + \frac{2e^{(4ia)}}{x^2-e^{(2ia)}}$$

```
[In] integrate(x*cot(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -1/2*x^4/(x^2 - e^(2*I*a)) - 2*x^2*e^(2*I*a)*log(-x^2 + e^(2*I*a))/(x^2 - e
^(2*I*a)) + 1/2*x^2*e^(2*I*a)/(x^2 - e^(2*I*a)) + 2*e^(4*I*a)*log(-x^2 + e^
(2*I*a))/(x^2 - e^(2*I*a)) + 2*e^(4*I*a)/(x^2 - e^(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 26.69 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.82

$$\int x\cot^2(a+i\log(x))\,dx=-\frac{2\,\mathrm{e}^{a\,4\mathrm{i}}}{\mathrm{e}^{a\,2\mathrm{i}}-x^2}-2\,\ln\left(x^2-\mathrm{e}^{a\,2\mathrm{i}}\right)\,\mathrm{e}^{a\,2\mathrm{i}}-\frac{x^2}{2}$$

```
[In] int(x*cot(a + log(x)*1i)^2,x)
```

```
[Out] - (2*exp(a*4i))/(exp(a*2i) - x^2) - 2*log(x^2 - exp(a*2i))*exp(a*2i) - x^2/
2
```

3.197 $\int \cot^2(a+i\log(x))\,dx$

Optimal result 2154
Rubi [A] (verified) 2154
Mathematica [A] (verified) 2156
Maple [A] (verified) 2156
Fricas [A] (verification not implemented) 2156
Sympy [A] (verification not implemented) 2157
Maxima [B] (verification not implemented) 2157
Giac [B] (verification not implemented) 2157
Mupad [B] (verification not implemented) 2158

Optimal result

Integrand size = 11, antiderivative size = 48

$$\int \cot^2(a+i\log(x))\,dx = -x-\frac{2e^{2ia}x}{e^{2ia}-x^2}+2e^{ia}\operatorname{arctanh}\left(e^{-ia}x\right)$$

```
[Out] -x-2*exp(2*I*a)*x/(exp(2*I*a)-x^2)+2*exp(I*a)*arctanh(x/exp(I*a))
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 48, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.455, Rules used = {4588, 381, 398, 294, 213}

$$\int \cot^2(a+i\log(x))\,dx = 2e^{ia}\operatorname{arctanh}\left(e^{-ia}x\right)-\frac{2e^{2ia}x}{-x^2+e^{2ia}}-x$$

```
[In] Int[Cot[a + I*Log[x]]^2,x]
```

```
[Out] -x - (2*E^((2*I)*a)*x)/(E^((2*I)*a) - x^2) + 2*E^(I*a)*ArcTanh[x/E^(I*a)]
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 294

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[c^(
n - 1)*(c*x)^(m - n + 1)*((a + b*x^n)^(p + 1)/(b*n*(p + 1))), x] - Dist[c^n
*((m - n + 1)/(b*n*(p + 1))), Int[(c*x)^(m - n)*(a + b*x^n)^(p + 1), x], x]
```

```
 /; FreeQ[{a, b, c}, x] && IGtQ[n, 0] && LtQ[p, -1] && GtQ[m + 1, n] &&  !I
LtQ[(m + n*(p + 1) + 1)/n, 0] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 381

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.), x_Symbol
] :> Int[x^(n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; FreeQ[{a, b, c, d
, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[n]
```

Rule 398

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Int[PolynomialDivide[(a + b*x^n)^p, (c + d*x^n)^(-q), x], x] /; FreeQ[{a
, b, c, d}, x] && NeQ[b*c - a*d, 0] && IGtQ[n, 0] && IGtQ[p, 0] && ILtQ[q,
0] && GeQ[p, -q]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1-\frac{e^{2ia}}{x^2}\right)^2}\,dx \\
&= \int \frac{\left(-ie^{2ia}-ix^2\right)^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= \int \left(-1-\frac{4e^{2ia}x^2}{\left(-e^{2ia}+x^2\right)^2}\right)dx \\
&= -x-\left(4e^{2ia}\right)\int \frac{x^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= -x-\frac{2e^{2ia}x}{e^{2ia}-x^2}-\left(2e^{2ia}\right)\int \frac{1}{-e^{2ia}+x^2}\,dx \\
&= -x-\frac{2e^{2ia}x}{e^{2ia}-x^2}+2e^{ia}\operatorname{arctanh}\left(e^{-ia}x\right)
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.06 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.46

$$\int \cot^2(a+i\log(x))\,dx = 2\text{arctanh}(x(\cos(a)-i\sin(a)))(\cos(a)+i\sin(a)) + \frac{-x(-3+x^2)\cos(a)+ix(3+x^2)\sin(a)}{(-1+x^2)\cos(a)-i\,(1+x^2)\sin(a)}$$

```
[In] Integrate[Cot[a + I*Log[x]]^2,x]
```

```
[Out] 2*ArcTanh[x*(Cos[a] - I*Sin[a])]*(Cos[a] + I*Sin[a]) + (-(x*(-3 + x^2)*Cos[
a]) + I*x*(3 + x^2)*Sin[a])/((-1 + x^2)*Cos[a] - I*(1 + x^2)*Sin[a])
```

Maple [A] (verified)

Time = 1.36 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.75

method	result	size
risch	$-3x-\frac{2x}{\frac{e^{2ia}}{x^2}-1}+2\,\text{arctanh}\left(x\,e^{-ia}\right)e^{ia}$	36

```
[In] int(cot(a+I*ln(x))^2,x,method=_RETURNVERBOSE)
```

```
[Out] -3*x-2*x/(exp(2*I*a)/x^2-1)+2*arctanh(x*exp(-I*a))*exp(I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 72, normalized size of antiderivative = 1.50

$$\int \cot^2(a+i\log(x))\,dx = -\frac{x^3-\left(x^2-e^{(2i\,a)}\right)e^{(i\,a)}\log\left(x+e^{(i\,a)}\right)+\left(x^2-e^{(2i\,a)}\right)e^{(i\,a)}\log\left(x-e^{(i\,a)}\right)-3\,xe^{(2i\,a)}}{x^2-e^{(2i\,a)}}$$

```
[In] integrate(cot(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] -(x^3 - (x^2 - e^(2*I*a))*e^(I*a)*log(x + e^(I*a)) + (x^2 - e^(2*I*a))*e^(I
*a)*log(x - e^(I*a)) - 3*x*e^(2*I*a))/(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.16 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.88

$$\int \cot^2(a+i\log(x))\,dx = -x + \frac{2xe^{2ia}}{x^2-e^{2ia}} - \left(\log\left(x-e^{ia}\right) - \log\left(x+e^{ia}\right)\right)e^{ia}$$

```
[In] integrate(cot(a+I*ln(x))**2,x)
[Out] -x + 2*x*exp(2*I*a)/(x**2 - exp(2*I*a)) - (log(x - exp(I*a)) - log(x + exp(
I*a)))*exp(I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 270 vs. 2(36) = 72.

Time = 0.22 (sec) , antiderivative size = 270, normalized size of antiderivative = 5.62

$$\int \cot^2(a+i\log(x))\,dx = -\frac{2\left((-i\cos(a)+\sin(a))\arctan(\sin(a), x+\cos(a)) + (-i\cos(a)+\sin(a))\arctan(\sin(a), x-\cos(a)\right.}{}$$

```
[In] integrate(cot(a+I*log(x))^2,x, algorithm="maxima")
[Out] -1/2*(2*((-I*cos(a) + sin(a))*arctan2(sin(a), x + cos(a)) + (-I*cos(a) + si
n(a))*arctan2(sin(a), x - cos(a)))*x^2 + 2*x^3 - 6*x*(cos(2*a) + I*sin(2*a)
) + 2*((I*cos(a) - sin(a))*cos(2*a) - (cos(a) + I*sin(a))*sin(2*a))*arctan2
(sin(a), x + cos(a)) + 2*((I*cos(a) - sin(a))*cos(2*a) - (cos(a) + I*sin(a)
)*sin(2*a))*arctan2(sin(a), x - cos(a)) - (x^2*(cos(a) + I*sin(a)) - (cos(a
) + I*sin(a))*cos(2*a) + (-I*cos(a) + sin(a))*sin(2*a))*log(x^2 + 2*x*cos(a
) + cos(a)^2 + sin(a)^2) + (x^2*(cos(a) + I*sin(a)) - (cos(a) + I*sin(a))*c
os(2*a) - (I*cos(a) - sin(a))*sin(2*a))*log(x^2 - 2*x*cos(a) + cos(a)^2 + s
in(a)^2))/(x^2 - cos(2*a) - I*sin(2*a))
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 79 vs. 2(36) = 72.

Time = 0.29 (sec) , antiderivative size = 79, normalized size of antiderivative = 1.65

$$\int \cot^2(a+i\log(x))\,dx = -\frac{x^3}{x^2-e^{(2ia)}} - 2\left(\frac{\arctan\left(\frac{x}{\sqrt{-e^{(2ia)}}}\right)}{\sqrt{-e^{(2ia)}}} - \frac{x}{x^2-e^{(2ia)}}\right)e^{(2ia)} + \frac{5xe^{(2ia)}}{x^2-e^{(2ia)}}$$

```
[In] integrate(cot(a+I*log(x))^2,x, algorithm="giac")
```

```
[Out] -x^3/(x^2 - e^(2*I*a)) - 2*(arctan(x/sqrt(-e^(2*I*a)))/sqrt(-e^(2*I*a)) - x
/(x^2 - e^(2*I*a)))*e^(2*I*a) + 5*x*e^(2*I*a)/(x^2 - e^(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 26.48 (sec) , antiderivative size = 44, normalized size of antiderivative = 0.92

$$\int \cot^2(a+i\log(x))\,dx = -x+2\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}\,\mathrm{atanh}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)-\frac{2\,x\,\mathrm{e}^{a\,2\mathrm{i}}}{\mathrm{e}^{a\,2\mathrm{i}}-x^2}$$

```
[In] int(cot(a + log(x)*1i)^2,x)
```

```
[Out] 2*exp(a*2i)^(1/2)*atanh(x/exp(a*2i)^(1/2)) - x - (2*x*exp(a*2i))/(exp(a*2i)
 - x^2)
```

3.198 $\int \frac{\cot^2(a+i\log(x))}{x}\,dx$

Optimal result 2159
Rubi [A] (verified) 2159
Mathematica [C] (verified) 2160
Maple [A] (verified) 2160
Fricas [B] (verification not implemented) 2161
Sympy [A] (verification not implemented) 2161
Maxima [A] (verification not implemented) 2161
Giac [B] (verification not implemented) 2161
Mupad [B] (verification not implemented) 2162

Optimal result

Integrand size = 15, antiderivative size = 18

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = i\cot(a+i\log(x)) - \log(x)$$

```
[Out] I*cot(a+I*ln(x))-ln(x)
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.133$, Rules used = $\{3554, 8\}$

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = -\log(x) + i\cot(a+i\log(x))$$

```
[In] Int[Cot[a + I*Log[x]]^2/x,x]
```

```
[Out] I*Cot[a + I*Log[x]] - Log[x]
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\text{Subst}\left(\int \cot^2(a+ix)\,dx,x,\log(x)\right)\\&=i\cot(a+i\log(x))-\text{Subst}(\int 1\,dx,x,\log(x))\\&=i\cot(a+i\log(x))-\log(x)\end{aligned}$$

Mathematica [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.05 (sec) , antiderivative size = 34, normalized size of antiderivative = 1.89

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx=i\cot(a+i\log(x))\,\text{Hypergeometric2F1}\left(-\frac{1}{2},1,\frac{1}{2},-\tan^2(a+i\log(x))\right)$$

```
[In] Integrate[Cot[a + I*Log[x]]^2/x,x]
[Out] I*Cot[a + I*Log[x]]*Hypergeometric2F1[-1/2, 1, 1/2, -Tan[a + I*Log[x]]^2]
```

Maple [A] (verified)

Time = 0.88 (sec) , antiderivative size = 21, normalized size of antiderivative = 1.17

method	result	size
risch	$-\ln\left(x\right)-\frac{2}{\frac{{\mathrm e}^{2 i a}}{x^{2}}-1}$	21
derivativedivides	$i\left(\cot\left(a+i\ln\left(x\right)\right)-\frac{\pi}{2}+\operatorname{arccot}\left(\cot\left(a+i\ln\left(x\right)\right)\right)\right)$	25
default	$i\left(\cot\left(a+i\ln\left(x\right)\right)-\frac{\pi}{2}+\operatorname{arccot}\left(\cot\left(a+i\ln\left(x\right)\right)\right)\right)$	25
norman	$\frac{-\ln\left(x\right)\tan\left(a+i\ln\left(x\right)\right)+i}{\tan\left(a+i\ln\left(x\right)\right)}$	27
parallelrisch	$\frac{-\ln\left(x\right)\tan\left(a+i\ln\left(x\right)\right)+i}{\tan\left(a+i\ln\left(x\right)\right)}$	27

```
[In] int(cot(a+I*ln(x))^2/x,x,method=_RETURNVERBOSE)
[Out] -ln(x)-2/(exp(2*I*a)/x^2-1)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 34 vs. $2(14) = 28$.

Time = 0.24 (sec) , antiderivative size = 34, normalized size of antiderivative = 1.89

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = -\frac{\left(x^2-e^{(2ia)}\right)\log(x)-2\,e^{(2ia)}}{x^2-e^{(2ia)}}$$

```
[In] integrate(cot(a+I*log(x))^2/x,x, algorithm="fricas")
[Out] -((x^2 - e^(2*I*a))*log(x) - 2*e^(2*I*a))/(x^2 - e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.17 (sec) , antiderivative size = 20, normalized size of antiderivative = 1.11

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = -\log(x)+\frac{2e^{2ia}}{x^2-e^{2ia}}$$

```
[In] integrate(cot(a+I*ln(x))**2/x,x)
[Out] -log(x) + 2*exp(2*I*a)/(x**2 - exp(2*I*a))
```

Maxima [A] (verification not implemented)

none

Time = 0.29 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.06

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = i\,a+\frac{i}{\tan(a+i\,\log(x))}-\log(x)$$

```
[In] integrate(cot(a+I*log(x))^2/x,x, algorithm="maxima")
[Out] I*a + I/tan(a + I*log(x)) - log(x)
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 32 vs. $2(14) = 28$.

Time = 0.26 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.78

$$\int \frac{\cot^2(a+i\log(x))}{x}\,dx = i\,a+\frac{i}{2\,\tan\left(\frac{1}{2}\,a+\frac{1}{2}i\,\log(x)\right)}-\log(x)-\frac{1}{2}i\,\tan\left(\frac{1}{2}\,a+\frac{1}{2}i\,\log(x)\right)$$

```
[In] integrate(cot(a+I*log(x))^2/x,x, algorithm="giac")
[Out] I*a + 1/2*I/tan(1/2*a + 1/2*I*log(x)) - log(x) - 1/2*I*tan(1/2*a + 1/2*I*lo
g(x))
```

Mupad [B] (verification not implemented)

Time = 27.75 (sec) , antiderivative size = 16, normalized size of antiderivative = 0.89

$$\int \frac{\cot^2(a + i\log(x))}{x}\,dx = -\ln(x) + \cot(a + \ln(x)\ 1\mathrm{i})\ 1\mathrm{i}$$

```
[In] int(cot(a + log(x)*1i)^2/x,x)
[Out] cot(a + log(x)*1i)*1i - log(x)
```

3.199 $\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx$

Optimal result 2163
Rubi [A] (verified) 2163
Mathematica [A] (verified) 2165
Maple [A] (verified) 2165
Fricas [A] (verification not implemented) 2165
Sympy [A] (verification not implemented) 2166
Maxima [B] (verification not implemented) 2166
Giac [A] (verification not implemented) 2166
Mupad [B] (verification not implemented) 2167

Optimal result

Integrand size = 15, antiderivative size = 64

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx=\frac{e^{2ia}}{x\left(e^{2ia}-x^2\right)}-\frac{3x}{e^{2ia}-x^2}-2e^{-ia}\text{arctanh}\left(e^{-ia}x\right)$$

```
[Out] exp(2*I*a)/x/(exp(2*I*a)-x^2)-3*x/(exp(2*I*a)-x^2)-2*arctanh(x/exp(I*a))/ex
p(I*a)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 64, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.333, Rules used = {4592, 456, 473, 393, 213}

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx=-2e^{-ia}\text{arctanh}\left(e^{-ia}x\right)-\frac{3x}{-x^2+e^{2ia}}+\frac{e^{2ia}}{x\left(-x^2+e^{2ia}\right)}$$

```
[In] Int[Cot[a + I*Log[x]]^2/x^2,x]
```

```
[Out] E^((2*I)*a)/(x*(E^((2*I)*a) - x^2)) - (3*x)/(E^((2*I)*a) - x^2) - (2*ArcTan
h[x/E^(I*a)])/E^(I*a)
```

Rule 213

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[b, 2])^(-
1))*ArcTanh[Rt[b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && NegQ[a/b] &&
 (LtQ[a, 0] || GtQ[b, 0])
```

Rule 393

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)), x_Symbol] :> Si
mp[(-(b*c - a*d))*x*((a + b*x^n)^(p + 1)/(a*b*n*(p + 1))), x] - Dist[(a*d -
 b*c*(n*(p + 1) + 1))/(a*b*n*(p + 1)), Int[(a + b*x^n)^(p + 1), x], x] /; F
reeQ[{a, b, c, d, n, p}, x] && NeQ[b*c - a*d, 0] && (LtQ[p, -1] || ILtQ[1/n
 + p, 0])
```

Rule 456

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Int[x^(m + n*(p + q))*(b + a/x^n)^p*(d + c/x^n)^q, x] /; Fr
eeQ[{a, b, c, d, m, n}, x] && NeQ[b*c - a*d, 0] && IntegersQ[p, q] && NegQ[
n]
```

Rule 473

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^2, x_Symbol] :> Simp[c^2*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*e*(m + 1))
), x] - Dist[1/(a*e^n*(m + 1)), Int[(e*x)^(m + n)*(a + b*x^n)^p*Simp[b*c^2*
n*(p + 1) + c*(b*c - 2*a*d)*(m + 1) - a*(m + 1)*d^2*x^n, x], x], x] /; Free
Q[{a, b, c, d, e, p}, x] && NeQ[b*c - a*d, 0] && IGtQ[n, 0] && LtQ[m, -1] &
& GtQ[n, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1-\frac{e^{2ia}}{x^2}\right)^2 x^2}\,dx \\
&= \int \frac{\left(-ie^{2ia}-ix^2\right)^2}{x^2\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}-x^2\right)} - e^{-2ia}\int \frac{5e^{4ia}+e^{2ia}x^2}{\left(-e^{2ia}+x^2\right)^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}-x^2\right)} - \frac{3x}{e^{2ia}-x^2} + 2\int \frac{1}{-e^{2ia}+x^2}\,dx \\
&= \frac{e^{2ia}}{x\left(e^{2ia}-x^2\right)} - \frac{3x}{e^{2ia}-x^2} - 2e^{-ia}\operatorname{arctanh}\left(e^{-ia}x\right)
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 72, normalized size of antiderivative = 1.12

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = \frac{1}{x} - 2\text{arctanh}(x(\cos(a)-i\sin(a)))\cos(a) + 2i\text{arctanh}(x(\cos(a)-i\sin(a)))\sin(a) + \frac{2x(\cos(a)-i\sin(a))}{(-1+x^2)\cos(a)-i(1+x^2)\sin(a)}$$

```
[In] Integrate[Cot[a + I*Log[x]]^2/x^2,x]
[Out] x^(-1) - 2*ArcTanh[x*(Cos[a] - I*Sin[a])]*Cos[a] + (2*I)*ArcTanh[x*(Cos[a]
- I*Sin[a])]*Sin[a] + (2*x*(Cos[a] - I*Sin[a]))/((-1 + x^2)*Cos[a] - I*(1 +
 x^2)*Sin[a])
```

Maple [A] (verified)

Time = 2.10 (sec) , antiderivative size = 38, normalized size of antiderivative = 0.59

method	result	size
risch	$\frac{1}{x}-\frac{2}{x\left(\frac{e^{2ia}}{x^2}-1\right)}-2\,\text{arctanh}\left(x\,e^{-ia}\right)e^{-ia}$	38

```
[In] int(cot(a+I*ln(x))^2/x^2,x,method=_RETURNVERBOSE)
[Out] 1/x-2/x/(exp(2*I*a)/x^2-1)-2*arctanh(x*exp(-I*a))*exp(-I*a)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.16

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = -\frac{(x^3-xe^{(2ia)})e^{(-ia)}\log\left(x+e^{(ia)}\right)-(x^3-xe^{(2ia)})e^{(-ia)}\log\left(x-e^{(ia)}\right)-3x^2+e^{(2ia)}}{x^3-xe^{(2ia)}}$$

```
[In] integrate(cot(a+I*log(x))^2/x^2,x, algorithm="fricas")
[Out] -((x^3 - x*e^(2*I*a))*e^(-I*a)*log(x + e^(I*a)) - (x^3 - x*e^(2*I*a))*e^(-I
*a)*log(x - e^(I*a)) - 3*x^2 + e^(2*I*a))/(x^3 - x*e^(2*I*a))
```

Sympy [A] (verification not implemented)

Time = 0.21 (sec) , antiderivative size = 46, normalized size of antiderivative = 0.72

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = -\frac{-3x^2+e^{2ia}}{x^3-xe^{2ia}} - \left(-\log\left(x-e^{ia}\right)+\log\left(x+e^{ia}\right)\right)e^{-ia}$$

```
[In] integrate(cot(a+I*ln(x))**2/x**2,x)
[Out] -(-3*x**2 + exp(2*I*a))/(x**3 - x*exp(2*I*a)) - (-log(x - exp(I*a)) + log(x
 + exp(I*a)))*exp(-I*a)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 276 vs. 2(50) = 100.

Time = 0.22 (sec) , antiderivative size = 276, normalized size of antiderivative = 4.31

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = -\frac{2\left((i\cos(a)+\sin(a))\arctan\left(\sin(a),x+\cos(a)\right)+(i\cos(a)+\sin(a))\arctan\left(\sin(a),x-\cos(a)\right)\right)x^3}{}$$

```
[In] integrate(cot(a+I*log(x))^2/x^2,x, algorithm="maxima")
[Out] -1/2*(2*((I*cos(a) + sin(a))*arctan2(sin(a), x + cos(a)) + (I*cos(a) + sin(
a))*arctan2(sin(a), x - cos(a)))*x^3 + 2*(((-I*cos(a) - sin(a))*cos(2*a) +
(cos(a) - I*sin(a))*sin(2*a))*arctan2(sin(a), x + cos(a)) + ((-I*cos(a) - s
in(a))*cos(2*a) + (cos(a) - I*sin(a))*sin(2*a))*arctan2(sin(a), x - cos(a))
)*x - 6*x^2 + (x^3*(cos(a) - I*sin(a)) - ((cos(a) - I*sin(a))*cos(2*a) + (I
*cos(a) + sin(a))*sin(2*a))*x)*log(x^2 + 2*x*cos(a) + cos(a)^2 + sin(a)^2)
- (x^3*(cos(a) - I*sin(a)) - ((cos(a) - I*sin(a))*cos(2*a) - (-I*cos(a) - s
in(a))*sin(2*a))*x)*log(x^2 - 2*x*cos(a) + cos(a)^2 + sin(a)^2) + 2*cos(2*a
) + 2*I*sin(2*a))/(x^3 - x*(cos(2*a) + I*sin(2*a)))
```

Giac [A] (verification not implemented)

none

Time = 0.31 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.36

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = 2\left(\frac{\arctan\left(\frac{x}{\sqrt{-e^{(2ia)}}}\right)e^{(-2ia)}}{\sqrt{-e^{(2ia)}}} + \frac{xe^{(-2ia)}}{x^2-e^{(2ia)}}\right)e^{(2ia)} + \frac{5x^2}{x^3-xe^{(2ia)}} - \frac{e^{(2ia)}}{x^3-xe^{(2ia)}}$$

```
[In] integrate(cot(a+I*log(x))^2/x^2,x, algorithm="giac")
```

```
[Out] 2*(arctan(x/sqrt(-e^(2*I*a)))*e^(-2*I*a)/sqrt(-e^(2*I*a)) + x*e^(-2*I*a)/(x
^2 - e^(2*I*a)))*e^(2*I*a) + 5*x^2/(x^3 - x*e^(2*I*a)) - e^(2*I*a)/(x^3 - x
*e^(2*I*a))
```

Mupad [B] (verification not implemented)

Time = 27.47 (sec) , antiderivative size = 47, normalized size of antiderivative = 0.73

$$\int \frac{\cot^2(a+i\log(x))}{x^2}\,dx = -\frac{2\,\mathrm{atanh}\left(\frac{x}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}\right)}{\sqrt{\mathrm{e}^{a\,2\mathrm{i}}}}-\frac{\mathrm{e}^{a\,2\mathrm{i}}-3\,x^2}{x^3-x\,\mathrm{e}^{a\,2\mathrm{i}}}$$

```
[In] int(cot(a + log(x)*1i)^2/x^2,x)
```

```
[Out] - (2*atanh(x/exp(a*2i)^(1/2)))/exp(a*2i)^(1/2) - (exp(a*2i) - 3*x^2)/(x^3 -
 x*exp(a*2i))
```

3.200 $\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx$

Optimal result . . . 2168
Rubi [A] (verified) . . . 2168
Mathematica [B] (verified) . . . 2169
Maple [A] (verified) . . . 2170
Fricas [A] (verification not implemented) . . . 2170
Sympy [A] (verification not implemented) . . . 2170
Maxima [F(-2)] . . . 2171
Giac [B] (verification not implemented) . . . 2171
Mupad [B] (verification not implemented) . . . 2171

Optimal result

Integrand size = 15, antiderivative size = 57

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = \frac{2e^{-2ia}}{1-\frac{e^{2ia}}{x^2}} + \frac{1}{2x^2} + 2e^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right)$$

```
[Out] 2/exp(2*I*a)/(1-exp(2*I*a)/x^2)+1/2/x^2+2*ln(1-exp(2*I*a)/x^2)/exp(2*I*a)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4592, 455, 45}

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = \frac{2e^{-2ia}}{1-\frac{e^{2ia}}{x^2}} + 2e^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right) + \frac{1}{2x^2}$$

```
[In] Int[Cot[a + I*Log[x]]^2/x^3,x]
```

```
[Out] 2/(E^((2*I)*a)*(1 - E^((2*I)*a)/x^2)) + 1/(2*x^2) + (2*Log[1 - E^((2*I)*a)/
x^2])/E^((2*I)*a)
```

Rule 45

```
Int[((a_.) + (b_.)*(x_))^(m_.)*((c_.) + (d_.)*(x_))^(n_.), x_Symbol] :> Int
[ExpandIntegrand[(a + b*x)^m*(c + d*x)^n, x], x] /; FreeQ[{a, b, c, d, n},
x] && NeQ[b*c - a*d, 0] && IGtQ[m, 0] && ( !IntegerQ[n] || (EqQ[c, 0] && Le
Q[7*m + 4*n + 4, 0]) || LtQ[9*m + 5*(n + 1), 0] || GtQ[m + n + 2, 0])
```

Rule 455

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n_))^(q_.
), x_Symbol] :> Dist[1/n, Subst[Int[(a + b*x)^p*(c + d*x)^q, x], x, x^n], x
```

```
] /; FreeQ[{a, b, c, d, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && EqQ[m - n +
 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2}{\left(1-\frac{e^{2ia}}{x^2}\right)^2 x^3}\,dx \\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \frac{\left(-i-ie^{2ia}x\right)^2}{\left(1-e^{2ia}x\right)^2}\,dx, x, \frac{1}{x^2}\right)\right) \\
&= -\left(\frac{1}{2}\text{Subst}\left(\int \left(-1-\frac{4}{\left(-1+e^{2ia}x\right)^2}-\frac{4}{-1+e^{2ia}x}\right)dx, x, \frac{1}{x^2}\right)\right) \\
&= \frac{2e^{-2ia}}{1-\frac{e^{2ia}}{x^2}}+\frac{1}{2x^2}+2e^{-2ia}\log\left(1-\frac{e^{2ia}}{x^2}\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 153 vs. $2(57) = 114$.

Time = 0.20 (sec) , antiderivative size = 153, normalized size of antiderivative = 2.68

$$
\begin{aligned}
\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = {} & \frac{1}{2x^2}+\cos(2a)\left(-4\log(x)+\log\left(1+x^4-2x^2\cos(2a)\right)\right) \\
& +\frac{2\cos(a)}{(-1+x^2)\cos(a)-i(1+x^2)\sin(a)} \\
& +\frac{2\sin(a)}{i(-1+x^2)\cos(a)+(1+x^2)\sin(a)} \\
& +\arctan\left(\frac{\cot(a)-x^2\cot(a)}{1+x^2}\right)(-2i\cos(2a)-4\cos(a)\sin(a)) \\
& +4i\log(x)\sin(2a)-i\log\left(1+x^4-2x^2\cos(2a)\right)\sin(2a)
\end{aligned}
$$

```
[In] Integrate[Cot[a + I*Log[x]]^2/x^3,x]
[Out] 1/(2*x^2) + Cos[2*a]*(-4*Log[x] + Log[1 + x^4 - 2*x^2*Cos[2*a]]) + (2*Cos[a
])/((-1 + x^2)*Cos[a] - I*(1 + x^2)*Sin[a]) + (2*Sin[a])/(I*(-1 + x^2)*Cos[
a] + (1 + x^2)*Sin[a]) + ArcTan[(Cot[a] - x^2*Cot[a])/(1 + x^2)]*((-2*I)*Co
s[2*a] - 4*Cos[a]*Sin[a]) + (4*I)*Log[x]*Sin[2*a] - I*Log[1 + x^4 - 2*x^2*C
os[2*a]]*Sin[2*a]
```

Maple [A] (verified)

Time = 3.08 (sec) , antiderivative size = 53, normalized size of antiderivative = 0.93

method	result	size
risch	$\frac{1}{2x^{2}}-\frac{2}{x^{2}\left(\frac{\mathrm{e}^{2 i a}}{x^{2}}-1\right)}+2\,\mathrm{e}^{-2 i a} \ln \left(\mathrm{e}^{2 i a}-x^{2}\right)-4\,\mathrm{e}^{-2 i a} \ln \left(x \right)$	53

[In] int(cot(a+I*ln(x))^2/x^3,x,method=_RETURNVERBOSE)

[Out] 1/2/x^2-2/x^2/(exp(2*I*a)/x^2-1)+2*exp(-2*I*a)*ln(exp(2*I*a)-x^2)-4*exp(-2*I*a)*ln(x)

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 81, normalized size of antiderivative = 1.42

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = \frac{5\,x^{2}e^{(2\,i\,a)}+4\,\left(x^{4}-x^{2}e^{(2\,i\,a)}\right)\log\left(x^{2}-e^{(2\,i\,a)}\right)-8\,\left(x^{4}-x^{2}e^{(2\,i\,a)}\right)\log\left(x\right)-e^{(4\,i\,a)}}{2\,\left(x^{4}e^{(2\,i\,a)}-x^{2}e^{(4\,i\,a)}\right)}$$

[In] integrate(cot(a+I*log(x))^2/x^3,x, algorithm="fricas")

[Out] 1/2*(5*x^2*e^(2*I*a) + 4*(x^4 - x^2*e^(2*I*a))*log(x^2 - e^(2*I*a)) - 8*(x^4 - x^2*e^(2*I*a))*log(x) - e^(4*I*a))/(x^4*e^(2*I*a) - x^2*e^(4*I*a))

Sympy [A] (verification not implemented)

Time = 0.27 (sec) , antiderivative size = 60, normalized size of antiderivative = 1.05

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = -\frac{-5x^{2}+e^{2ia}}{2x^{4}-2x^{2}e^{2ia}}-4e^{-2ia}\log\left(x\right)+2e^{-2ia}\log\left(x^{2}-e^{2ia}\right)$$

[In] integrate(cot(a+I*ln(x))**2/x**3,x)

[Out] -(-5*x**2 + exp(2*I*a))/(2*x**4 - 2*x**2*exp(2*I*a)) - 4*exp(-2*I*a)*log(x) + 2*exp(-2*I*a)*log(x**2 - exp(2*I*a))

Maxima [F(-2)]

Exception generated.

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = \text{Exception raised: RuntimeError}$$

```
[In] integrate(cot(a+I*log(x))^2/x^3,x, algorithm="maxima")
```

```
[Out] Exception raised: RuntimeError >> ECL says: THROW: The catch RAT-ERR is und
efined.
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 190 vs. $2(42) = 84$.

Time = 0.32 (sec) , antiderivative size = 190, normalized size of antiderivative = 3.33

$$\begin{aligned}\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = &\frac{2\,x^4\log\left(x^2-e^{(2i\,a)}\right)}{x^4e^{(2i\,a)}-x^2e^{(4i\,a)}} - \frac{4\,x^4\log\left(x\right)}{x^4e^{(2i\,a)}-x^2e^{(4i\,a)}} \\ &- \frac{2\,x^2e^{(2i\,a)}\log\left(x^2-e^{(2i\,a)}\right)}{x^4e^{(2i\,a)}-x^2e^{(4i\,a)}} + \frac{4\,x^2e^{(2i\,a)}\log\left(x\right)}{x^4e^{(2i\,a)}-x^2e^{(4i\,a)}} \\ &+ \frac{5\,x^2e^{(2i\,a)}}{2\left(x^4e^{(2i\,a)}-x^2e^{(4i\,a)}\right)} - \frac{e^{(4i\,a)}}{2\left(x^4e^{(2i\,a)}-x^2e^{(4i\,a)}\right)}\end{aligned}$$

```
[In] integrate(cot(a+I*log(x))^2/x^3,x, algorithm="giac")
```

```
[Out] 2*x^4*log(x^2 - e^(2*I*a))/(x^4*e^(2*I*a) - x^2*e^(4*I*a)) - 4*x^4*log(x)/(
x^4*e^(2*I*a) - x^2*e^(4*I*a)) - 2*x^2*e^(2*I*a)*log(x^2 - e^(2*I*a))/(x^4*
e^(2*I*a) - x^2*e^(4*I*a)) + 4*x^2*e^(2*I*a)*log(x)/(x^4*e^(2*I*a) - x^2*e^
(4*I*a)) + 5/2*x^2*e^(2*I*a)/(x^4*e^(2*I*a) - x^2*e^(4*I*a)) - 1/2*e^(4*I*a
)/(x^4*e^(2*I*a) - x^2*e^(4*I*a))
```

Mupad [B] (verification not implemented)

Time = 27.57 (sec) , antiderivative size = 60, normalized size of antiderivative = 1.05

$$\int \frac{\cot^2(a+i\log(x))}{x^3}\,dx = -4\,\mathrm{e}^{-a\,2\mathrm{i}}\,\ln\left(x\right) + 2\,\ln\left(x^2-\mathrm{e}^{a\,2\mathrm{i}}\right)\,\mathrm{e}^{-a\,2\mathrm{i}} + \frac{\frac{\mathrm{e}^{a\,2\mathrm{i}}}{2}-\frac{5\,x^2}{2}}{x^2\,\mathrm{e}^{a\,2\mathrm{i}}-x^4}$$

```
[In] int(cot(a + log(x)*1i)^2/x^3,x)
```

```
[Out] 2*log(x^2 - exp(a*2i))*exp(-a*2i) - 4*exp(-a*2i)*log(x) + (exp(a*2i)/2 - (5
*x^2)/2)/(x^2*exp(a*2i) - x^4)
```

3.201 $\int (ex)^m \cot(a+i\log(x))\,dx$

Optimal result 2172
Rubi [A] (verified) 2172
Mathematica [A] (verified) 2174
Maple [F] 2174
Fricas [F] 2174
Sympy [F] 2175
Maxima [F] 2175
Giac [F] 2175
Mupad [F(-1)] 2175

Optimal result

Integrand size = 15, antiderivative size = 70

$$\int (ex)^m \cot(a+i\log(x))\,dx = \frac{i(ex)^{1+m}}{e(1+m)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)}{e(1+m)}$$

```
[Out] I*(e*x)^(1+m)/e/(1+m)-2*I*(e*x)^(1+m)*hypergeom([1, -1/2-1/2*m],[1/2-1/2*m]
,exp(2*I*a)/x^2)/e/(1+m)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}} = 0.267$, Rules used = {4592, 470, 346, 371}

$$\int (ex)^m \cot(a+i\log(x))\,dx = \frac{i(ex)^{m+1}}{e(m+1)} - \frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-m-1),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)}{e(m+1)}$$

```
[In] Int[(e*x)^m*Cot[a + I*Log[x]],x]
```

```
[Out] (I*(e*x)^(1 + m))/(e*(1 + m)) - ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1, (
-1 - m)/2, (1 - m)/2, E^((2*I)*a)/x^2])/(e*(1 + m))
```

Rule 346

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Dist[(-c^
(-1))*(c*x)^(m + 1)*(1/x)^(m + 1), Subst[Int[(a + b/x^n)^p/x^(m + 2), x], x
```

```
, 1/x], x] /; FreeQ[{a, b, c, m, p}, x] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)(ex)^m}{1-\frac{e^{2ia}}{x^2}}\,dx \\
&= \frac{i(ex)^{1+m}}{e(1+m)}-2i\int \frac{(ex)^m}{1-\frac{e^{2ia}}{x^2}}\,dx \\
&= \frac{i(ex)^{1+m}}{e(1+m)}+\frac{\left(2i\left(\frac{1}{x}\right)^{1+m}(ex)^{1+m}\right)\text{Subst}\left(\int \frac{x^{-2-m}}{1-e^{2ia}x^2}\,dx,x,\frac{1}{x}\right)}{e} \\
&= \frac{i(ex)^{1+m}}{e(1+m)}-\frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)}{e(1+m)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.23 (sec) , antiderivative size = 103, normalized size of antiderivative = 1.47

$$\int (ex)^m \cot(a + i\log(x))\,dx$$
$$= ix(ex)^m \left(\frac{\text{Hypergeometric2F1}\left(1, \frac{1+m}{2}, \frac{3+m}{2}, x^2(\cos(2a) - i\sin(2a))\right)}{1+m} + \frac{x^2\,\text{Hypergeometric2F1}\left(1, \frac{3+m}{2}, \frac{5+m}{2}, x^2(\cos(2a) - i\sin(2a))\right)(\cos(a) - i\sin(a))^2}{3+m}\right)$$

```
[In] Integrate[(e*x)^m*Cot[a + I*Log[x]],x]
[Out] I*x*(e*x)^m*(Hypergeometric2F1[1, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a] - I*S
in[2*a])]/(1 + m) + (x^2*Hypergeometric2F1[1, (3 + m)/2, (5 + m)/2, x^2*(Co
s[2*a] - I*Sin[2*a])]*(Cos[a] - I*Sin[a])^2)/(3 + m))
```

Maple [F]

$$\int (ex)^m \cot(a + i\ln(x))\,dx$$

```
[In] int((e*x)^m*cot(a+I*ln(x)),x)
[Out] int((e*x)^m*cot(a+I*ln(x)),x)
```

Fricas [F]

$$\int (ex)^m \cot(a + i\log(x))\,dx = \int (ex)^m \cot(a + i\log(x))\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x)),x, algorithm="fricas")
[Out] integral(-(I*x^2 + I*e^(2*I*a))*e^(m*log(e) + m*log(x))/(x^2 - e^(2*I*a)),
x)
```

Sympy [F]

$$\int (ex)^m \cot(a+i\log(x))\,dx = \int (ex)^m \cot\left(a+i\log\left(x\right)\right)dx$$

```
[In] integrate((e*x)**m*cot(a+I*ln(x)),x)
[Out] Integral((e*x)**m*cot(a + I*log(x)), x)
```

Maxima [F]

$$\int (ex)^m \cot(a+i\log(x))\,dx = \int (ex)^m \cot\left(a+i\,\log\left(x\right)\right)\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x)),x, algorithm="maxima")
[Out] integrate((e*x)^m*cot(a + I*log(x)), x)
```

Giac [F]

$$\int (ex)^m \cot(a+i\log(x))\,dx = \int (ex)^m \cot\left(a+i\,\log\left(x\right)\right)\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x)),x, algorithm="giac")
[Out] integrate((e*x)^m*cot(a + I*log(x)), x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot(a+i\log(x))\,dx = \int \cot(a+\ln\left(x\right)\,1\mathrm{i})\,\left(e\,x\right)^m\,dx$$

```
[In] int(cot(a + log(x)*1i)*(e*x)^m,x)
[Out] int(cot(a + log(x)*1i)*(e*x)^m, x)
```

3.202 $\int (ex)^m \cot^2(a+i\log(x))\,dx$

Optimal result 2176
Rubi [A] (verified) 2176
Mathematica [A] (verified) 2178
Maple [F] 2178
Fricas [F] 2178
Sympy [F] 2179
Maxima [F] 2179
Giac [F] 2179
Mupad [F(-1)] 2179

Optimal result

Integrand size = 17, antiderivative size = 77

$$\int (ex)^m \cot^2(a+i\log(x))\,dx = -\frac{x(ex)^m}{1+m}+\frac{2x(ex)^m}{1-\frac{e^{2ia}}{x^2}} - 2x(ex)^m \text{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)$$

```
[Out] -x*(e*x)^m/(1+m)+2*x*(e*x)^m/(1-exp(2*I*a)/x^2)-2*x*(e*x)^m*hypergeom([1, -
1/2-1/2*m],[1/2-1/2*m],exp(2*I*a)/x^2)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 77, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.294, Rules used = {4592, 511, 474, 470, 371}

$$\int (ex)^m \cot^2(a+i\log(x))\,dx = -2x(ex)^m \text{Hypergeometric2F1}\left(1,\frac{1}{2}(-m-1),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right) + \frac{2x(ex)^m}{1-\frac{e^{2ia}}{x^2}} - \frac{x(ex)^m}{m+1}$$

```
[In] Int[(e*x)^m*Cot[a + I*Log[x]]^2,x]
```

```
[Out] -((x*(e*x)^m)/(1 + m)) + (2*x*(e*x)^m)/(1 - E^((2*I)*a)/x^2) - 2*x*(e*x)^m*
Hypergeometric2F1[1, (-1 - m)/2, (1 - m)/2, E^((2*I)*a)/x^2]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 474

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^2, x_Symbol] :> Simp[(-(b*c - a*d)^2)*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)
/(a*b^2*e*n*(p + 1))), x] + Dist[1/(a*b^2*n*(p + 1)), Int[(e*x)^m*(a + b*x^
n)^(p + 1)*Simp[(b*c - a*d)^2*(m + 1) + b^2*c^2*n*(p + 1) + a*b*d^2*n*(p +
1)*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0]
&& IGtQ[n, 0] && LtQ[p, -1]
```

Rule 511

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^(q_), x_Symbol] :> Dist[(-(e*x)^m)*(x^(-1))^m, Subst[Int[(a + b/x^n)^p*((
c + d/x^n)^q/x^(m + 2)), x], x, 1/x], x] /; FreeQ[{a, b, c, d, e, m, p, q},
 x] && NeQ[b*c - a*d, 0] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^2 (ex)^m}{\left(1-\frac{e^{2ia}}{x^2}\right)^2}\,dx$$

$$= -\left(\left(\left(\frac{1}{x}\right)^m (ex)^m\right)\text{Subst}\left(\int \frac{x^{-2-m}\left(-i-ie^{2ia}x^2\right)^2}{\left(1-e^{2ia}x^2\right)^2}\,dx, x, \frac{1}{x}\right)\right)$$

$$= \frac{2x(ex)^m}{1-\frac{e^{2ia}}{x^2}}+\frac{1}{2}\left(e^{-4ia}\left(\frac{1}{x}\right)^m (ex)^m\right)\text{Subst}\left(\int \frac{x^{-2-m}\left(2e^{4ia}(3+2m)-2e^{6ia}x^2\right)}{1-e^{2ia}x^2}\,dx, x, \frac{1}{x}\right)$$

$$= -\frac{x(ex)^m}{1+m} + \frac{2x(ex)^m}{1-\frac{e^{2ia}}{x^2}} + \left(2(1+m)\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}}{1-e^{2ia}x^2}\,dx, x, \frac{1}{x}\right)$$

$$= -\frac{x(ex)^m}{1+m} + \frac{2x(ex)^m}{1-\frac{e^{2ia}}{x^2}} - 2x(ex)^m \text{Hypergeometric2F1}\left(1, \frac{1}{2}(-1-m), \frac{1-m}{2}, \frac{e^{2ia}}{x^2}\right)$$

Mathematica [A] (verified)

Time = 0.17 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.09

$$\int (ex)^m \cot^2(a+i\log(x))\,dx$$
$$= \frac{x(ex)^m \left(-1+4\,\text{Hypergeometric2F1}\left(1, \frac{1+m}{2}, \frac{3+m}{2}, x^2(\cos(2a)-i\sin(2a))\right) - 4\,\text{Hypergeometric2F1}\left(2, \frac{1+n}{2}\right.\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Cot[a + I*Log[x]]^2,x]
```

```
[Out] (x*(e*x)^m*(-1 + 4*Hypergeometric2F1[1, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a]
 - I*Sin[2*a])] - 4*Hypergeometric2F1[2, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a
] - I*Sin[2*a])]))/(1 + m)
```

Maple [F]

$$\int (ex)^m \cot(a+i\ln(x))^2\,dx$$

```
[In] int((e*x)^m*cot(a+I*ln(x))^2,x)
```

```
[Out] int((e*x)^m*cot(a+I*ln(x))^2,x)
```

Fricas [F]

$$\int (ex)^m \cot^2(a+i\log(x))\,dx = \int (ex)^m \cot(a+i\log(x))^2\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x))^2,x, algorithm="fricas")
```

```
[Out] integral(-(x^4 + 2*x^2*e^(2*I*a) + e^(4*I*a))*e^(m*log(e) + m*log(x))/(x^4
- 2*x^2*e^(2*I*a) + e^(4*I*a)), x)
```

Sympy [F]

$$\int (ex)^m \cot^2(a + i\log(x))\,dx = \int (ex)^m \cot^2(a + i\log(x))\,dx$$

```
[In] integrate((e*x)**m*cot(a+I*ln(x))**2,x)
[Out] Integral((e*x)**m*cot(a + I*log(x))**2, x)
```

Maxima [F]

$$\int (ex)^m \cot^2(a + i\log(x))\,dx = \int (ex)^m \cot\left(a + i\log(x)\right)^2\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x))^2,x, algorithm="maxima")
[Out] integrate((e*x)^m*cot(a + I*log(x))^2, x)
```

Giac [F]

$$\int (ex)^m \cot^2(a + i\log(x))\,dx = \int (ex)^m \cot\left(a + i\log(x)\right)^2\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x))^2,x, algorithm="giac")
[Out] integrate((e*x)^m*cot(a + I*log(x))^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^2(a + i\log(x))\,dx = \int \cot(a + \ln(x)\ 1\mathrm{i})^2\,(e\,x)^m\,dx$$

```
[In] int(cot(a + log(x)*1i)^2*(e*x)^m,x)
[Out] int(cot(a + log(x)*1i)^2*(e*x)^m, x)
```

3.203 $\int (ex)^m \cot^3(a+i\log(x))\,dx$

Optimal result 2180
Rubi [A] (verified) 2180
Mathematica [A] (verified) 2183
Maple [F] 2183
Fricas [F] 2183
Sympy [F] 2183
Maxima [F] 2184
Giac [F] 2184
Mupad [F(-1)] 2184

Optimal result

Integrand size = 17, antiderivative size = 169

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \frac{i(1-m)mx(ex)^m}{2(1+m)} - \frac{i\left(1+\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} - \frac{i\left(3+m-\frac{e^{2ia}(1-m)}{x^2}\right)x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)} + \frac{i(3+2m+m^2)\,x(ex)^m \operatorname{Hypergeometric2F1}\left(1,\frac{1}{2}(-1-m),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)}{1+m}$$

```
[Out] 1/2*I*(1-m)*m*x*(e*x)^m/(1+m)-1/2*I*(1+exp(2*I*a)/x^2)^2*x*(e*x)^m/(1-exp(2
*I*a)/x^2)^2-1/2*I*(3+m-exp(2*I*a)*(1-m)/x^2)*x*(e*x)^m/(1-exp(2*I*a)/x^2)+
I*(m^2+2*m+3)*x*(e*x)^m*hypergeom([1, -1/2-1/2*m],[1/2-1/2*m],exp(2*I*a)/x^
2)/(1+m)
```

Rubi [A] (verified)

Time = 0.27 (sec) , antiderivative size = 169, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}} = 0.353$, Rules used = {4592, 511, 479, 591, 470, 371}

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \frac{i(m^2+2m+3)\,x(ex)^m \operatorname{Hypergeometric2F1}\left(1,\frac{1}{2}(-m-1),\frac{1-m}{2},\frac{e^{2ia}}{x^2}\right)}{m+1} - \frac{ix\left(1+\frac{e^{2ia}}{x^2}\right)^2(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} - \frac{ix\left(-\frac{e^{2ia}(1-m)}{x^2}+m+3\right)(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)} + \frac{i(1-m)mx(ex)^m}{2(m+1)}$$

```
[In] Int[(e*x)^m*Cot[a + I*Log[x]]^3,x]
```

```
[Out] ((I/2)*(1 - m)*m*x*(e*x)^m)/(1 + m) - ((I/2)*(1 + E^((2*I)*a)/x^2)^2*x*(e*x
)^m)/(1 - E^((2*I)*a)/x^2)^2 - ((I/2)*(3 + m - (E^((2*I)*a)*(1 - m))/x^2)*x
*(e*x)^m)/(1 - E^((2*I)*a)/x^2) + (I*(3 + 2*m + m^2)*x*(e*x)^m*Hypergeometr
ic2F1[1, (-1 - m)/2, (1 - m)/2, E^((2*I)*a)/x^2])/(1 + m)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 479

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m}, x] && NeQ[b*c - a*d, 0] && IGtQ[n
, 0] && LtQ[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q,
x]
```

Rule 511

```
Int[((e_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_)
)^(q_), x_Symbol] :> Dist[(-(e*x)^m)*(x^(-1))^m, Subst[Int[(a + b/x^n)^p*((
c + d/x^n)^q/x^(m + 2)), x], x, 1/x], x] /; FreeQ[{a, b, c, d, e, m, p, q},
 x] && NeQ[b*c - a*d, 0] && ILtQ[n, 0] &&  !RationalQ[m]
```

Rule 591

```
Int[((g_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_.)*((e_) + (f_.)*(x_)^(n_)), x_Symbol] :> Simp[(-(b*e - a*f))*(g*x)^(
m + 1)*(a + b*x^n)^(p + 1)*((c + d*x^n)^q/(a*b*g*n*(p + 1))), x] + Dist[1/(
a*b*n*(p + 1)), Int[(g*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 1)*Simp[c*
(b*e*n*(p + 1) + (b*e - a*f)*(m + 1)) + d*(b*e*n*(p + 1) + (b*e - a*f)*(m +
```

```
n*q + 1))*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, f, g, m}, x] && IGtQ[n,
0] && LtQ[p, -1] && GtQ[q, 0] &&  !(EqQ[q, 1] && SimplerQ[b*c - a*d, b*e -
a*f])
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \frac{\left(-i-\frac{ie^{2ia}}{x^2}\right)^3 (ex)^m}{\left(1-\frac{e^{2ia}}{x^2}\right)^3}\,dx \\
&= -\left(\left(\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}\left(-i-ie^{2ia}x^2\right)^3}{\left(1-e^{2ia}x^2\right)^3}\,dx, x, \frac{1}{x}\right)\right) \\
&= -\frac{i\left(1+\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} \\
&\quad -\frac{1}{4}\left(e^{-2ia}\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}\left(-i-ie^{2ia}x^2\right)\left(-2e^{2ia}(3+m)+2e^{4ia}(1-m)x^2\right)}{\left(1-e^{2ia}x^2\right)^2}\,dx, x,\right. \\
&= -\frac{i\left(1+\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} - \frac{i\left(3+m-\frac{e^{2ia}(1-m)}{x^2}\right) x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)} \\
&\quad -\frac{1}{8}\left(e^{-4ia}\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}\left(4ie^{4ia}(2+m)(3+m)-4ie^{6ia}(1-m)mx^2\right)}{1-e^{2ia}x^2}\,dx, x, \frac{1}{x}\right) \\
&= \frac{i(1-m)mx(ex)^m}{2(1+m)} - \frac{i\left(1+\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} - \frac{i\left(3+m-\frac{e^{2ia}(1-m)}{x^2}\right) x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)} \\
&\quad -\left(i\left(3+2m+m^2\right)\left(\frac{1}{x}\right)^m (ex)^m\right) \text{Subst}\left(\int \frac{x^{-2-m}}{1-e^{2ia}x^2}\,dx, x, \frac{1}{x}\right) \\
&= \frac{i(1-m)mx(ex)^m}{2(1+m)} - \frac{i\left(1+\frac{e^{2ia}}{x^2}\right)^2 x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)^2} - \frac{i\left(3+m-\frac{e^{2ia}(1-m)}{x^2}\right) x(ex)^m}{2\left(1-\frac{e^{2ia}}{x^2}\right)} \\
&\quad + \frac{i\left(3+2m+m^2\right) x(ex)^m\, \text{Hypergeometric2F1}\left(1, \frac{1}{2}(-1-m), \frac{1-m}{2}, \frac{e^{2ia}}{x^2}\right)}{1+m}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.21 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.72

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = -\frac{ix(ex)^m \left(-1+6\,\text{Hypergeometric2F1}\left(1,\frac{1+m}{2},\frac{3+m}{2},x^2(\cos(2a)-i\sin(2a))\right)-12\,\text{Hypergeometric2F1}\left(\right.\right.}{1+}$$

[In] Integrate[(e*x)^m*Cot[a + I*Log[x]]^3,x]

[Out] ((-I)*x*(e*x)^m*(-1 + 6*Hypergeometric2F1[1, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a] - I*Sin[2*a])] - 12*Hypergeometric2F1[2, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a] - I*Sin[2*a])] + 8*Hypergeometric2F1[3, (1 + m)/2, (3 + m)/2, x^2*(Cos[2*a] - I*Sin[2*a])]))/(1 + m)

Maple [F]

$$\int (ex)^m \cot(a+i\ln(x))^3\,dx$$

[In] int((e*x)^m*cot(a+I*ln(x))^3,x)

[Out] int((e*x)^m*cot(a+I*ln(x))^3,x)

Fricas [F]

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \int (ex)^m \cot(a+i\,\log(x))^3\,dx$$

[In] integrate((e*x)^m*cot(a+I*log(x))^3,x, algorithm="fricas")

[Out] integral(-(-I*x^6 - 3*I*x^4*e^(2*I*a) - 3*I*x^2*e^(4*I*a) - I*e^(6*I*a))*e^(m*log(e) + m*log(x))/(x^6 - 3*x^4*e^(2*I*a) + 3*x^2*e^(4*I*a) - e^(6*I*a)), x)

Sympy [F]

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \int (ex)^m \cot^3(a+i\log(x))\,dx$$

[In] integrate((e*x)**m*cot(a+I*ln(x))**3,x)

[Out] Integral((e*x)**m*cot(a + I*log(x))**3, x)

Maxima [F]

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \int (ex)^m \cot\left(a+i\,\log\left(x\right)\right)^3\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x))^3,x, algorithm="maxima")
[Out] integrate((e*x)^m*cot(a + I*log(x))^3, x)
```

Giac [F]

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \int (ex)^m \cot\left(a+i\,\log\left(x\right)\right)^3\,dx$$

```
[In] integrate((e*x)^m*cot(a+I*log(x))^3,x, algorithm="giac")
[Out] integrate((e*x)^m*cot(a + I*log(x))^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^3(a+i\log(x))\,dx = \int \cot(a+\ln\left(x\right)\,1\mathrm{i})^3\,(e\,x)^m\,dx$$

```
[In] int(cot(a + log(x)*1i)^3*(e*x)^m,x)
[Out] int(cot(a + log(x)*1i)^3*(e*x)^m, x)
```

3.204 $\int \cot^p(a+b\log(x))\,dx$

Optimal result . . . 2185
Rubi [A] (verified) . . . 2185
Mathematica [B] (warning: unable to verify) . . . 2187
Maple [F] . . . 2187
Fricas [F] . . . 2187
Sympy [F] . . . 2188
Maxima [F] . . . 2188
Giac [F] . . . 2188
Mupad [F(-1)] . . . 2188

Optimal result

Integrand size = 9, antiderivative size = 142

$$\int \cot^p(a+b\log(x))\,dx = x\left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\left(-\frac{i\left(1+e^{2ia}x^{2ib}\right)}{1-e^{2ia}x^{2ib}}\right)^p \operatorname{AppellF1}\left(-\frac{i}{2b},p,-p,1-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)$$

```
[Out] x*(1-exp(2*I*a)*x^(2*I*b))^p*(-I*(1+exp(2*I*a)*x^(2*I*b))/(1-exp(2*I*a)*x^(
2*I*b)))^p*AppellF1(-1/2*I/b,p,-p,1-1/2*I/b,exp(2*I*a)*x^(2*I*b),-exp(2*I*a
)*x^(2*I*b))/((1+exp(2*I*a)*x^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4588, 1986, 441, 440}

$$\int \cot^p(a+b\log(x))\,dx = x\left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\left(-\frac{i\left(1+e^{2ia}x^{2ib}\right)}{1-e^{2ia}x^{2ib}}\right)^p \operatorname{AppellF1}\left(-\frac{i}{2b},p,-p,1-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)$$

```
[In] Int[Cot[a + b*Log[x]]^p,x]
```

```
[Out] (x*(1 - E^((2*I)*a)*x^((2*I)*b))^p*(((-I)*(1 + E^((2*I)*a)*x^((2*I)*b)))/(1
 - E^((2*I)*a)*x^((2*I)*b)))^p*AppellF1[(-1/2*I)/b, p, -p, 1 - (I/2)/b, E^(
(2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b))])/(1 + E^((2*I)*a)*x^((2*I
)*b))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p\,dx\\
&= \left(\left(1-e^{2ia}x^{2ib}\right)^p\left(-i-ie^{2ia}x^{2ib}\right)^{-p}\left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p\right)\int \left(1-e^{2ia}x^{2ib}\right)^{-p}\left(-i-ie^{2ia}x^{2ib}\right)^p\,dx\\
&= \left(\left(1-e^{2ia}x^{2ib}\right)^p\left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\right)\int \left(1-e^{2ia}x^{2ib}\right)^{-p}\left(1+e^{2ia}x^{2ib}\right)^p\,dx\\
&= x\left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\left(-\frac{i\left(1+e^{2ia}x^{2ib}\right)}{1-e^{2ia}x^{2ib}}\right)^p\text{AppellF1}\left(-\frac{i}{2b},p,-p,1-\frac{i}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)
\end{aligned}
$$

Mathematica [B] (warning: unable to verify)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 330 vs. $2(142) = 284$.

Time = 0.50 (sec) , antiderivative size = 330, normalized size of antiderivative = 2.32

$$\int \cot^p(a + b\log(x))\,dx$$

$$= \frac{(-i+2b)x\left(\frac{i(1+e^{2ia}x^{2ib})}{-1+e^{2ia}x^{2ib}}\right)^p \operatorname{AppellF1}\left(-\frac{i}{2b}, p, -\right.}{2be^{2ia}px^{2ib}\operatorname{AppellF1}\left(1-\frac{i}{2b}, p, 1-p, 2-\frac{i}{2b}, e^{2ia}x^{2ib}, -e^{2ia}x^{2ib}\right) + 2be^{2ia}px^{2ib}\operatorname{AppellF1}\left(1-\frac{i}{2b}, 1+p, -p\right.}$$

```
[In] Integrate[Cot[a + b*Log[x]]^p,x]
[Out] ((-I + 2*b)*x*((I*(1 + E^((2*I)*a)*x^((2*I)*b)))/(-1 + E^((2*I)*a)*x^((2*I)
*b)))^p*AppellF1[(-1/2*I)/b, p, -p, 1 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -
(E^((2*I)*a)*x^((2*I)*b))])/(2*b*E^((2*I)*a)*p*x^((2*I)*b)*AppellF1[1 - (I/
2)/b, p, 1 - p, 2 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I
)*b))] + 2*b*E^((2*I)*a)*p*x^((2*I)*b)*AppellF1[1 - (I/2)/b, 1 + p, -p, 2 -
 (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b))] + (-I + 2*b)
*AppellF1[(-1/2*I)/b, p, -p, 1 - (I/2)/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*
I)*a)*x^((2*I)*b))])
```

Maple [F]

$$\int \cot\left(a + b\ln\left(x\right)\right)^{p} dx$$

```
[In] int(cot(a+b*ln(x))^p,x)
[Out] int(cot(a+b*ln(x))^p,x)
```

Fricas [F]

$$\int \cot^p(a + b\log(x))\,dx = \int \cot\left(b\log\left(x\right) + a\right)^{p}\,dx$$

```
[In] integrate(cot(a+b*log(x))^p,x, algorithm="fricas")
[Out] integral(cot(b*log(x) + a)^p, x)
```

Sympy [F]

$$\int \cot^p(a + b\log(x))\,dx = \int \cot^p\left(a + b\log\left(x\right)\right)\,dx$$

```
[In] integrate(cot(a+b*ln(x))**p,x)
[Out] Integral(cot(a + b*log(x))**p, x)
```

Maxima [F]

$$\int \cot^p(a + b\log(x))\,dx = \int \cot\left(b\log\left(x\right) + a\right)^p\,dx$$

```
[In] integrate(cot(a+b*log(x))^p,x, algorithm="maxima")
[Out] integrate(cot(b*log(x) + a)^p, x)
```

Giac [F]

$$\int \cot^p(a + b\log(x))\,dx = \int \cot\left(b\log\left(x\right) + a\right)^p\,dx$$

```
[In] integrate(cot(a+b*log(x))^p,x, algorithm="giac")
[Out] integrate(cot(b*log(x) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \cot^p(a + b\log(x))\,dx = \int \cot(a + b\,\ln\left(x\right))^p\,dx$$

```
[In] int(cot(a + b*log(x))^p,x)
[Out] int(cot(a + b*log(x))^p, x)
```

3.205 $\int (ex)^m \cot^p(a+b\log(x))\,dx$

Optimal result 2189
Rubi [A] (verified) 2189
Mathematica [A] (verified) 2191
Maple [F] 2191
Fricas [F] 2191
Sympy [F] 2191
Maxima [F] 2192
Giac [F] 2192
Mupad [F(-1)] 2192

Optimal result

Integrand size = 15, antiderivative size = 162

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \frac{(ex)^{1+m}\left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{2ib})}{1-e^{2ia}x^{2ib}}\right)^p \operatorname{AppellF1}\left(-\frac{i(1+m)}{2b},p,-p,1-\frac{i(1+m)}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)}{e(1+m)}$$

```
[Out] (e*x)^(1+m)*(1-exp(2*I*a)*x^(2*I*b))^p*(-I*(1+exp(2*I*a)*x^(2*I*b))/(1-exp(
2*I*a)*x^(2*I*b)))^p*AppellF1(-1/2*I*(1+m)/b,p,-p,1-1/2*I*(1+m)/b,exp(2*I*a
)*x^(2*I*b),-exp(2*I*a)*x^(2*I*b))/e/(1+m)/((1+exp(2*I*a)*x^(2*I*b))^p)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 162, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4592, 1986, 525, 524}

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \frac{(ex)^{m+1}\left(1-e^{2ia}x^{2ib}\right)^p\left(1+e^{2ia}x^{2ib}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{2ib})}{1-e^{2ia}x^{2ib}}\right)^p \operatorname{AppellF1}\left(-\frac{i(m+1)}{2b},p,-p,1-\frac{i(m+1)}{2b},e^{2ia}x^{2ib},-e^{2ia}x^{2ib}\right)}{e(m+1)}$$

```
[In] Int[(e*x)^m*Cot[a + b*Log[x]]^p,x]
```

```
[Out] ((e*x)^(1 + m)*(1 - E^((2*I)*a)*x^((2*I)*b))^p*(((-I)*(1 + E^((2*I)*a)*x^((
2*I)*b)))/(1 - E^((2*I)*a)*x^((2*I)*b)))^p*AppellF1[((-1/2*I)*(1 + m))/b, p
, -p, 1 - ((I/2)*(1 + m))/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I
)*b))])/(e*(1 + m)*(1 + E^((2*I)*a)*x^((2*I)*b))^p)
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int (ex)^m \left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p dx \\
&= \left(\left(1-e^{2ia}x^{2ib}\right)^p \left(-i-ie^{2ia}x^{2ib}\right)^{-p} \left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p\right) \int (ex)^m \left(1 - e^{2ia}x^{2ib}\right)^{-p} \left(-i-ie^{2ia}x^{2ib}\right)^p dx \\
&= \left(\left(1-e^{2ia}x^{2ib}\right)^p \left(\frac{-i-ie^{2ia}x^{2ib}}{1-e^{2ia}x^{2ib}}\right)^p \left(1+e^{2ia}x^{2ib}\right)^{-p}\right) \int (ex)^m \left(1-e^{2ia}x^{2ib}\right)^{-p} \left(1 + e^{2ia}x^{2ib}\right)^p dx \\
&= \frac{(ex)^{1+m} \left(1-e^{2ia}x^{2ib}\right)^p \left(1+e^{2ia}x^{2ib}\right)^{-p} \left(-\frac{i(1+e^{2ia}x^{2ib})}{1-e^{2ia}x^{2ib}}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2b}, p, -p, 1-\frac{i(1+m)}{2b}, e^{2ia}x\right.}{e(1+m)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.75 (sec) , antiderivative size = 157, normalized size of antiderivative = 0.97

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \frac{x(ex)^m \left(1-e^{2ia}x^{2ib}\right)^p \left(1+e^{2ia}x^{2ib}\right)^{-p} \left(\frac{i(1+e^{2ia}x^{2ib})}{-1+e^{2ia}x^{2ib}}\right)^p \text{AppellF1}\left(-\frac{i(1+m)}{2b},p,-p,1-\frac{i(1+m)}{2b},e^{2ia}x^{2ib},-e^{2ia}\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Cot[a + b*Log[x]]^p,x]
[Out] (x*(e*x)^m*(1 - E^((2*I)*a)*x^((2*I)*b))^p*((I*(1 + E^((2*I)*a)*x^((2*I)*b)
))/(-1 + E^((2*I)*a)*x^((2*I)*b)))^p*AppellF1[((-1/2*I)*(1 + m))/b, p, -p,
1 - ((I/2)*(1 + m))/b, E^((2*I)*a)*x^((2*I)*b), -(E^((2*I)*a)*x^((2*I)*b))]
)/((1 + m)*(1 + E^((2*I)*a)*x^((2*I)*b))^p)
```

Maple [F]

$$\int (ex)^m \cot(a+b\ln(x))^p\,dx$$

```
[In] int((e*x)^m*cot(a+b*ln(x))^p,x)
[Out] int((e*x)^m*cot(a+b*ln(x))^p,x)
```

Fricas [F]

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \int (ex)^m \cot(b\log(x)+a)^p\,dx$$

```
[In] integrate((e*x)^m*cot(a+b*log(x))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*cot(b*log(x) + a)^p, x)
```

Sympy [F]

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \int (ex)^m \cot^p(a+b\log(x))\,dx$$

```
[In] integrate((e*x)**m*cot(a+b*ln(x))**p,x)
[Out] Integral((e*x)**m*cot(a + b*log(x))**p, x)
```

Maxima [F]

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \int (ex)^m \cot\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate((e*x)^m*cot(a+b*log(x))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*cot(b*log(x) + a)^p, x)
```

Giac [F]

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \int (ex)^m \cot\left(b\log\left(x\right)+a\right)^p\,dx$$

```
[In] integrate((e*x)^m*cot(a+b*log(x))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*cot(b*log(x) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^p(a+b\log(x))\,dx = \int \cot(a+b\,\ln\left(x\right))^p\,\left(e\,x\right)^m\,dx$$

```
[In] int(cot(a + b*log(x))^p*(e*x)^m,x)
[Out] int(cot(a + b*log(x))^p*(e*x)^m, x)
```

3.206 $\int \cot^p(a+\log(x))\,dx$

Optimal result 2193
Rubi [A] (verified) 2193
Mathematica [A] (warning: unable to verify) 2195
Maple [F] 2195
Fricas [F] 2195
Sympy [F] 2196
Maxima [F] 2196
Giac [F] 2196
Mupad [F(-1)] 2196

Optimal result

Integrand size = 7, antiderivative size = 120

$$\int \cot^p(a+\log(x))\,dx=\left(1-e^{2ia}x^{2i}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{2i})}{1-e^{2ia}x^{2i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{2},p,-p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)$$

```
[Out] (1-exp(2*I*a)*x^(2*I))^p*(-I*(1+exp(2*I*a)*x^(2*I))/(1-exp(2*I*a)*x^(2*I)))
^p*x*AppellF1(-1/2*I,p,-p,1-1/2*I,exp(2*I*a)*x^(2*I),-exp(2*I*a)*x^(2*I))/(
(1+exp(2*I*a)*x^(2*I))^p)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.571, Rules used = {4588, 1986, 441, 440}

$$\int \cot^p(a+\log(x))\,dx=x\left(1-e^{2ia}x^{2i}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{2i})}{1-e^{2ia}x^{2i}}\right)^p\text{AppellF1}\left(-\frac{i}{2},p,-p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)$$

```
[In] Int[Cot[a + Log[x]]^p,x]
```

```
[Out] ((1 - E^((2*I)*a)*x^(2*I))^p*(((-I)*(1 + E^((2*I)*a)*x^(2*I)))/(1 - E^((2*I
)*a)*x^(2*I)))^p*x*AppellF1[-1/2*I, p, -p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(
E^((2*I)*a)*x^(2*I))])/(1 + E^((2*I)*a)*x^(2*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \left(\frac{-i-ie^{2ia}x^{2i}}{1-e^{2ia}x^{2i}}\right)^p\,dx \\
&= \left(\left(1-e^{2ia}x^{2i}\right)^p\left(-i-ie^{2ia}x^{2i}\right)^{-p}\left(\frac{-i-ie^{2ia}x^{2i}}{1-e^{2ia}x^{2i}}\right)^p\right)\int \left(1-e^{2ia}x^{2i}\right)^{-p}\left(-i-ie^{2ia}x^{2i}\right)^p\,dx \\
&= \left(\left(1-e^{2ia}x^{2i}\right)^p\left(\frac{-i-ie^{2ia}x^{2i}}{1-e^{2ia}x^{2i}}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p}\right)\int \left(1-e^{2ia}x^{2i}\right)^{-p}\left(1+e^{2ia}x^{2i}\right)^p\,dx \\
&= \left(1-e^{2ia}x^{2i}\right)^p\left(1+e^{2ia}x^{2i}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{2i})}{1-e^{2ia}x^{2i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{2},p,-p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)
\end{aligned}$$

Mathematica [A] (warning: unable to verify)

Time = 0.41 (sec) , antiderivative size = 238, normalized size of antiderivative = 1.98

$$\int \cot^p(a+\log(x))\,dx$$

$$= \frac{(2-i)\left(\frac{i(1+e^{2ia}x^{2i})}{-1+e^{2ia}x^{2i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{2},p,-p,1-\frac{i}{2},e^{2i}\right.}{(2-i)\,\text{AppellF1}\left(-\frac{i}{2},p,-p,1-\frac{i}{2},e^{2ia}x^{2i},-e^{2ia}x^{2i}\right)+2e^{2ia}px^{2i}\left(\text{AppellF1}\left(1-\frac{i}{2},p,1-p,2-\frac{i}{2},e^{2ia}x^{2i},\right.\right.}$$

```
[In] Integrate[Cot[a + Log[x]]^p,x]
```

```
[Out] ((2 - I)*((I*(1 + E^((2*I)*a)*x^(2*I)))/(-1 + E^((2*I)*a)*x^(2*I)))^p*x*App
ellF1[-1/2*I, p, -p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*I))])
/((2 - I)*AppellF1[-1/2*I, p, -p, 1 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*
a)*x^(2*I))] + 2*E^((2*I)*a)*p*x^(2*I)*(AppellF1[1 - I/2, p, 1 - p, 2 - I/2
, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*I))] + AppellF1[1 - I/2, 1 + p, -
p, 2 - I/2, E^((2*I)*a)*x^(2*I), -(E^((2*I)*a)*x^(2*I))]))
```

Maple [F]

$$\int \cot\left(a+\ln\left(x\right)\right)^{p}dx$$

```
[In] int(cot(a+ln(x))^p,x)
```

```
[Out] int(cot(a+ln(x))^p,x)
```

Fricas [F]

$$\int \cot^p(a+\log(x))\,dx = \int \cot\left(a+\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(cot(a+log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(cot(a + log(x))^p, x)
```

Sympy [F]

$$\int \cot^p(a+\log(x))\,dx = \int \cot^p(a+\log(x))\,dx$$

```
[In] integrate(cot(a+ln(x))**p,x)
[Out] Integral(cot(a + log(x))**p, x)
```

Maxima [F]

$$\int \cot^p(a+\log(x))\,dx = \int \cot(a+\log(x))^p\,dx$$

```
[In] integrate(cot(a+log(x))^p,x, algorithm="maxima")
[Out] integrate(cot(a + log(x))^p, x)
```

Giac [F]

$$\int \cot^p(a+\log(x))\,dx = \int \cot(a+\log(x))^p\,dx$$

```
[In] integrate(cot(a+log(x))^p,x, algorithm="giac")
[Out] integrate(cot(a + log(x))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \cot^p(a+\log(x))\,dx = \int \cot(a+\ln(x))^p\,dx$$

```
[In] int(cot(a + log(x))^p,x)
[Out] int(cot(a + log(x))^p, x)
```

3.207 $\int \cot^p(a+2\log(x))\,dx$

Optimal result 2197
Rubi [A] (verified) 2197
Mathematica [A] (warning: unable to verify) 2199
Maple [F] 2199
Fricas [F] 2199
Sympy [F] 2200
Maxima [F] 2200
Giac [F] 2200
Mupad [F(-1)] 2200

Optimal result

Integrand size = 9, antiderivative size = 120

$$\int \cot^p(a+2\log(x))\,dx = \left(1-e^{2ia}x^{4i}\right)^p\left(1+e^{2ia}x^{4i}\right)^{-p}\left(-\frac{i\left(1+e^{2ia}x^{4i}\right)}{1-e^{2ia}x^{4i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{4},p,-p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)$$

```
[Out] (1-exp(2*I*a)*x^(4*I))^p*(-I*(1+exp(2*I*a)*x^(4*I))/(1-exp(2*I*a)*x^(4*I)))
^p*x*AppellF1(-1/4*I,p,-p,1-1/4*I,exp(2*I*a)*x^(4*I),-exp(2*I*a)*x^(4*I))/(
(1+exp(2*I*a)*x^(4*I))^p)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4588, 1986, 441, 440}

$$\int \cot^p(a+2\log(x))\,dx = x\left(1-e^{2ia}x^{4i}\right)^p\left(1+e^{2ia}x^{4i}\right)^{-p}\left(-\frac{i\left(1+e^{2ia}x^{4i}\right)}{1-e^{2ia}x^{4i}}\right)^p \text{AppellF1}\left(-\frac{i}{4},p,-p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)$$

```
[In] Int[Cot[a + 2*Log[x]]^p,x]
```

```
[Out] ((1 - E^((2*I)*a)*x^(4*I))^p*(((-I)*(1 + E^((2*I)*a)*x^(4*I)))/(1 - E^((2*I
)*a)*x^(4*I)))^p*x*AppellF1[-1/4*I, p, -p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(
E^((2*I)*a)*x^(4*I))])/(1 + E^((2*I)*a)*x^(4*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \int \left(\frac{-i-ie^{2ia}x^{4i}}{1-e^{2ia}x^{4i}}\right)^p \, dx \\
&= \left(\left(1-e^{2ia}x^{4i}\right)^p \left(-i-ie^{2ia}x^{4i}\right)^{-p} \left(\frac{-i-ie^{2ia}x^{4i}}{1-e^{2ia}x^{4i}}\right)^p\right) \int \left(1-e^{2ia}x^{4i}\right)^{-p} \left(-i-ie^{2ia}x^{4i}\right)^p \, dx \\
&= \left(\left(1-e^{2ia}x^{4i}\right)^p \left(\frac{-i-ie^{2ia}x^{4i}}{1-e^{2ia}x^{4i}}\right)^p \left(1+e^{2ia}x^{4i}\right)^{-p}\right) \int \left(1-e^{2ia}x^{4i}\right)^{-p} \left(1+e^{2ia}x^{4i}\right)^p \, dx \\
&= \left(1-e^{2ia}x^{4i}\right)^p \left(1+e^{2ia}x^{4i}\right)^{-p} \left(-\frac{i(1+e^{2ia}x^{4i})}{1-e^{2ia}x^{4i}}\right)^p x \,\text{AppellF1}\left(-\frac{i}{4}, p, -p, 1 - \frac{i}{4}, e^{2ia}x^{4i}, -e^{2ia}x^{4i}\right)
\end{aligned}
$$

Mathematica [A] (warning: unable to verify)

Time = 0.43 (sec) , antiderivative size = 238, normalized size of antiderivative = 1.98

$$\int \cot^p(a+2\log(x))\,dx$$
$$= \frac{(4-i)\left(\frac{i(1+e^{2ia}x^{4i})}{-1+e^{2ia}x^{4i}}\right)^p x \operatorname{AppellF1}\left(-\frac{i}{4},p,-p,1-\frac{i}{4},e^{2i}\right.}{(4-i)\operatorname{AppellF1}\left(-\frac{i}{4},p,-p,1-\frac{i}{4},e^{2ia}x^{4i},-e^{2ia}x^{4i}\right)+4e^{2ia}px^{4i}\left(\operatorname{AppellF1}\left(1-\frac{i}{4},p,1-p,2-\frac{i}{4},e^{2ia}x^{4i},\right.\right.}$$

```
[In] Integrate[Cot[a + 2*Log[x]]^p,x]
```

```
[Out] ((4 - I)*((I*(1 + E^((2*I)*a)*x^(4*I)))/(-1 + E^((2*I)*a)*x^(4*I)))^p*x*App
ellF1[-1/4*I, p, -p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*I))])
/((4 - I)*AppellF1[-1/4*I, p, -p, 1 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*
a)*x^(4*I))] + 4*E^((2*I)*a)*p*x^(4*I)*(AppellF1[1 - I/4, p, 1 - p, 2 - I/4
, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*I))] + AppellF1[1 - I/4, 1 + p, -
p, 2 - I/4, E^((2*I)*a)*x^(4*I), -(E^((2*I)*a)*x^(4*I))]))
```

Maple [F]

$$\int \cot\left(a+2\ln\left(x\right)\right)^{p} dx$$

```
[In] int(cot(a+2*ln(x))^p,x)
```

```
[Out] int(cot(a+2*ln(x))^p,x)
```

Fricas [F]

$$\int \cot^p(a+2\log(x))\,dx = \int \cot\left(a+2\,\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(cot(a+2*log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(cot(a + 2*log(x))^p, x)
```

Sympy [F]

$$\int \cot^p(a+2\log(x))\,dx = \int \cot^p\left(a+2\log\left(x\right)\right)dx$$

```
[In] integrate(cot(a+2*ln(x))**p,x)
[Out] Integral(cot(a + 2*log(x))**p, x)
```

Maxima [F]

$$\int \cot^p(a+2\log(x))\,dx = \int \cot\left(a+2\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(cot(a+2*log(x))^p,x, algorithm="maxima")
[Out] integrate(cot(a + 2*log(x))^p, x)
```

Giac [F]

$$\int \cot^p(a+2\log(x))\,dx = \int \cot\left(a+2\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(cot(a+2*log(x))^p,x, algorithm="giac")
[Out] integrate(cot(a + 2*log(x))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \cot^p(a+2\log(x))\,dx = \int \cot(a+2\,\ln\left(x\right))^p\,dx$$

```
[In] int(cot(a + 2*log(x))^p,x)
[Out] int(cot(a + 2*log(x))^p, x)
```

3.208 $\int \cot^p(a+3\log(x))\,dx$

Optimal result 2201
Rubi [A] (verified) 2201
Mathematica [A] (warning: unable to verify) 2203
Maple [F] 2203
Fricas [F] 2203
Sympy [F] 2204
Maxima [F] 2204
Giac [F] 2204
Mupad [F(-1)] 2204

Optimal result

Integrand size = 9, antiderivative size = 120

$$\int \cot^p(a+3\log(x))\,dx = \left(1-e^{2ia}x^{6i}\right)^p \left(1+e^{2ia}x^{6i}\right)^{-p} \left(-\frac{i(1+e^{2ia}x^{6i})}{1-e^{2ia}x^{6i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6},p,-p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)$$

```
[Out] (1-exp(2*I*a)*x^(6*I))^p*(-I*(1+exp(2*I*a)*x^(6*I))/(1-exp(2*I*a)*x^(6*I)))
^p*x*AppellF1(-1/6*I,p,-p,1-1/6*I,exp(2*I*a)*x^(6*I),-exp(2*I*a)*x^(6*I))/(
(1+exp(2*I*a)*x^(6*I))^p)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.444, Rules used = {4588, 1986, 441, 440}

$$\int \cot^p(a+3\log(x))\,dx = x\left(1-e^{2ia}x^{6i}\right)^p \left(1+e^{2ia}x^{6i}\right)^{-p} \left(-\frac{i(1+e^{2ia}x^{6i})}{1-e^{2ia}x^{6i}}\right)^p \text{AppellF1}\left(-\frac{i}{6},p,-p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)$$

```
[In] Int[Cot[a + 3*Log[x]]^p,x]
```

```
[Out] ((1 - E^((2*I)*a)*x^(6*I))^p*(((-I)*(1 + E^((2*I)*a)*x^(6*I)))/(1 - E^((2*I
)*a)*x^(6*I)))^p*x*AppellF1[-1/6*I, p, -p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(
E^((2*I)*a)*x^(6*I))])/(1 + E^((2*I)*a)*x^(6*I))^p
```

Rule 440

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Simp[a^p*c^q*x*AppellF1[1/n, -p, -q, 1 + 1/n, (-b)*(x^n/a), (-d)*(x^n/c)
], x] /; FreeQ[{a, b, c, d, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1]
 && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 441

```
Int[((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_))^(q_), x_Symbol]
:> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^n/a))^FracPart[p]),
 Int[(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /; FreeQ[{a, b, c, d, n, p, q}
, x] && NeQ[b*c - a*d, 0] && NeQ[n, -1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4588

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Int[((-I - I*E^(
2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*d)))^p, x] /; FreeQ[{a, b,
d, p}, x]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \int \left(\frac{-i-ie^{2ia}x^{6i}}{1-e^{2ia}x^{6i}}\right)^p\,dx\\
&= \left(\left(1-e^{2ia}x^{6i}\right)^p\left(-i-ie^{2ia}x^{6i}\right)^{-p}\left(\frac{-i-ie^{2ia}x^{6i}}{1-e^{2ia}x^{6i}}\right)^p\right)\int\left(1-e^{2ia}x^{6i}\right)^{-p}\left(-i-ie^{2ia}x^{6i}\right)^p\,dx\\
&= \left(\left(1-e^{2ia}x^{6i}\right)^p\left(\frac{-i-ie^{2ia}x^{6i}}{1-e^{2ia}x^{6i}}\right)^p\left(1+e^{2ia}x^{6i}\right)^{-p}\right)\int\left(1-e^{2ia}x^{6i}\right)^{-p}\left(1+e^{2ia}x^{6i}\right)^p\,dx\\
&= \left(1-e^{2ia}x^{6i}\right)^p\left(1+e^{2ia}x^{6i}\right)^{-p}\left(-\frac{i(1+e^{2ia}x^{6i})}{1-e^{2ia}x^{6i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6},p,-p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)
\end{aligned}$$

Mathematica [A] (warning: unable to verify)

Time = 0.40 (sec) , antiderivative size = 238, normalized size of antiderivative = 1.98

$$\int \cot^p(a+3\log(x))\,dx$$

$$= \frac{(6-i)\left(\frac{i(1+e^{2ia}x^{6i})}{-1+e^{2ia}x^{6i}}\right)^p x\,\text{AppellF1}\left(-\frac{i}{6},p,-p,1-\frac{i}{6},e^{2i\ldots}\right.}{(6-i)\,\text{AppellF1}\left(-\frac{i}{6},p,-p,1-\frac{i}{6},e^{2ia}x^{6i},-e^{2ia}x^{6i}\right)+6e^{2ia}px^{6i}\left(\text{AppellF1}\left(1-\frac{i}{6},p,1-p,2-\frac{i}{6},e^{2ia}x^{6i},\ldots\right.\right.}$$

```
[In] Integrate[Cot[a + 3*Log[x]]^p,x]
```

```
[Out] ((6 - I)*((I*(1 + E^((2*I)*a)*x^(6*I)))/(-1 + E^((2*I)*a)*x^(6*I)))^p*x*App
ellF1[-1/6*I, p, -p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*I))])
/((6 - I)*AppellF1[-1/6*I, p, -p, 1 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*
a)*x^(6*I))] + 6*E^((2*I)*a)*p*x^(6*I)*(AppellF1[1 - I/6, p, 1 - p, 2 - I/6
, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*I))] + AppellF1[1 - I/6, 1 + p, -
p, 2 - I/6, E^((2*I)*a)*x^(6*I), -(E^((2*I)*a)*x^(6*I))]))
```

Maple [F]

$$\int \cot\left(a+3\ln\left(x\right)\right)^{p}dx$$

```
[In] int(cot(a+3*ln(x))^p,x)
```

```
[Out] int(cot(a+3*ln(x))^p,x)
```

Fricas [F]

$$\int \cot^p(a+3\log(x))\,dx=\int \cot\left(a+3\,\log\left(x\right)\right)^{p}\,dx$$

```
[In] integrate(cot(a+3*log(x))^p,x, algorithm="fricas")
```

```
[Out] integral(cot(a + 3*log(x))^p, x)
```

Sympy [F]

$$\int \cot^p(a+3\log(x))\,dx = \int \cot^p\left(a+3\log\left(x\right)\right)dx$$

```
[In] integrate(cot(a+3*ln(x))**p,x)
[Out] Integral(cot(a + 3*log(x))**p, x)
```

Maxima [F]

$$\int \cot^p(a+3\log(x))\,dx = \int \cot\left(a+3\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(cot(a+3*log(x))^p,x, algorithm="maxima")
[Out] integrate(cot(a + 3*log(x))^p, x)
```

Giac [F]

$$\int \cot^p(a+3\log(x))\,dx = \int \cot\left(a+3\,\log\left(x\right)\right)^p\,dx$$

```
[In] integrate(cot(a+3*log(x))^p,x, algorithm="giac")
[Out] integrate(cot(a + 3*log(x))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \cot^p(a+3\log(x))\,dx = \int \cot(a+3\,\ln\left(x\right))^p\,dx$$

```
[In] int(cot(a + 3*log(x))^p,x)
[Out] int(cot(a + 3*log(x))^p, x)
```

3.209 $\int x^3 \cot(d(a+b\log(cx^n)))\,dx$

Optimal result 2205
Rubi [A] (verified) 2205
Mathematica [B] (verified) 2207
Maple [F] 2207
Fricas [F] 2207
Sympy [F] 2208
Maxima [F] 2208
Giac [F] 2208
Mupad [F(-1)] 2208

Optimal result

Integrand size = 17, antiderivative size = 70

$$\int x^3 \cot(d(a+b\log(cx^n)))\,dx = \frac{ix^4}{4} - \frac{1}{2}ix^4 \text{Hypergeometric2F1}\left(1, -\frac{2i}{bdn}, 1 - \frac{2i}{bdn}, e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] 1/4*I*x^4-1/2*I*x^4*hypergeom([1, -2*I/b/d/n],[1-2*I/b/d/n],exp(2*I*a*d)*(c
*x^n)^(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4594, 4592, 470, 371}

$$\int x^3 \cot(d(a+b\log(cx^n)))\,dx = \frac{ix^4}{4} - \frac{1}{2}ix^4 \text{Hypergeometric2F1}\left(1, -\frac{2i}{bdn}, 1 - \frac{2i}{bdn}, e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[x^3*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (I/4)*x^4 - (I/2)*x^4*Hypergeometric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n
), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int x^{-1+\frac{4}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^4}{4}-\frac{\left(2ix^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^4}{4}-\frac{1}{2}ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 220 vs. 2(70) = 140.

Time = 4.27 (sec) , antiderivative size = 220, normalized size of antiderivative = 3.14

$$\int x^3 \cot(d(a+b\log(cx^n)))\,dx =$$
$$-\frac{x^4\left(2e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{2i}{bdn},2-\frac{2i}{bdn},e^{2id(a+b\log(cx^n))}\right)+(-2i+bdn)\left(\cot(d(a+\right.\right.}{}$$

```
[In] Integrate[x^3*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] -((x^4*(2*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (2*I)/(b*
d*n), 2 - (2*I)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-2*I + b*d*n)*(
Cot[d*(a + b*Log[c*x^n])] - Cot[d*(a - b*n*Log[x] + b*Log[c*x^n])] + I*Hype
rgeometric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n), E^((2*I)*d*(a + b*Log[c
*x^n]))] + Csc[d*(a + b*Log[c*x^n])]*Csc[d*(a - b*n*Log[x] + b*Log[c*x^n])]
*Sin[b*d*n*Log[x]])))/(-8*I + 4*b*d*n))
```

Maple [F]

$$\int x^3 \cot(d(a+b\ln(c\,x^n)))\,dx$$

```
[In] int(x^3*cot(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x^3*cot(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x^3 \cot(d(a+b\log(cx^n)))\,dx = \int x^3 \cot((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate(x^3*cot(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x^3*cot(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x^3 \cot \left(d(a+b \log \left(cx^n\right))\right) \, dx = \int x^3 \cot \left(ad + bd \log \left(cx^n\right)\right) dx$$

```
[In] integrate(x**3*cot(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x**3*cot(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x^3 \cot \left(d(a+b \log \left(cx^n\right))\right) \, dx = \int x^3 \cot \left((b \log \left(cx^n\right)+a)d\right) \, dx$$

```
[In] integrate(x^3*cot(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x^3*cot((b*log(c*x^n) + a)*d), x)
```

Giac [F]

$$\int x^3 \cot \left(d(a+b \log \left(cx^n\right))\right) \, dx = \int x^3 \cot \left((b \log \left(cx^n\right)+a)d\right) \, dx$$

```
[In] integrate(x^3*cot(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] integrate(x^3*cot((b*log(c*x^n) + a)*d), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^3 \cot \left(d(a+b \log \left(cx^n\right))\right) \, dx = \int x^3 \cot(d\,(a+b\,\ln\left(c\,x^n\right))) \, dx$$

```
[In] int(x^3*cot(d*(a + b*log(c*x^n))),x)
[Out] int(x^3*cot(d*(a + b*log(c*x^n))), x)
```

3.210 $\int x^2 \cot(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 2209
Rubi [A] (verified) . . . 2209
Mathematica [B] (verified) . . . 2211
Maple [F] . . . 2211
Fricas [F] . . . 2211
Sympy [F] . . . 2212
Maxima [F] . . . 2212
Giac [F] . . . 2212
Mupad [F(-1)] . . . 2212

Optimal result

Integrand size = 17, antiderivative size = 74

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \frac{ix^3}{3} - \frac{2}{3}ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] 1/3*I*x^3-2/3*I*x^3*hypergeom([1, -3/2*I/b/d/n],[1-3/2*I/b/d/n],exp(2*I*a*d
)*(c*x^n)^(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4594, 4592, 470, 371}

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \frac{ix^3}{3} - \frac{2}{3}ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[x^2*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (I/3)*x^3 - ((2*I)/3)*x^3*Hypergeometric2F1[1, ((-3*I)/2)/(b*d*n), 1 - ((3*
I)/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^3}{3}-\frac{\left(2ix^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^3}{3}-\frac{2}{3}ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 229 vs. $2(74) = 148$.

Time = 4.38 (sec) , antiderivative size = 229, normalized size of antiderivative = 3.09

$$\int x^2 \cot(d(a + b\log(cx^n)))\,dx = -\frac{x^3\left(3e^{2id(a+b\log(cx^n))}\text{Hypergeometric2F1}\left(1, 1-\frac{3i}{2bdn}, 2-\frac{3i}{2bdn}, e^{2id(a+b\log(cx^n))}\right) + (-3i+2bdn)\left(\cot\left(d(a\right.\right.\right.}{}$$

```
[In] Integrate[x^2*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] -((x^3*(3*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - ((3*I)/2)
/(b*d*n), 2 - ((3*I)/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-3*I +
2*b*d*n)*(Cot[d*(a + b*Log[c*x^n])] - Cot[d*(a - b*n*Log[x] + b*Log[c*x^n])
] + I*Hypergeometric2F1[1, ((-3*I)/2)/(b*d*n), 1 - ((3*I)/2)/(b*d*n), E^((2
*I)*d*(a + b*Log[c*x^n]))] + Csc[d*(a + b*Log[c*x^n])]*Csc[d*(a - b*n*Log[x
] + b*Log[c*x^n])]*Sin[b*d*n*Log[x]])))/(-9*I + 6*b*d*n))
```

Maple [F]

$$\int x^2 \cot(d(a + b\ln(c\,x^n)))\,dx$$

```
[In] int(x^2*cot(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x^2*cot(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x^2 \cot(d(a + b\log(cx^n)))\,dx = \int x^2 \cot((b\log(cx^n) + a)d)\,dx$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x^2*cot(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \int x^2 \cot(ad+bd\log(cx^n))\,dx$$

```
[In] integrate(x**2*cot(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x**2*cot(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \int x^2 \cot((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x^2*cot((b*log(c*x^n) + a)*d), x)
```

Giac [F]

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \int x^2 \cot((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] integrate(x^2*cot((b*log(c*x^n) + a)*d), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \cot(d(a+b\log(cx^n)))\,dx = \int x^2 \cot(d\,(a+b\,\ln(c\,x^n)))\,dx$$

```
[In] int(x^2*cot(d*(a + b*log(c*x^n))),x)
[Out] int(x^2*cot(d*(a + b*log(c*x^n))), x)
```

3.211 $\int x \cot (d(a+b \log (c x^n))) \, dx$

Optimal result 2213
Rubi [A] (verified) 2213
Mathematica [B] (verified) 2215
Maple [F] 2215
Fricas [F] 2215
Sympy [F] 2216
Maxima [F] 2216
Giac [F] 2216
Mupad [F(-1)] 2216

Optimal result

Integrand size = 15, antiderivative size = 68

$$\int x \cot (d(a+b \log (c x^n))) \, dx = \frac{i x^2}{2} - i x^2 \text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1 - \frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] 1/2*I*x^2-I*x^2*hypergeom([1, -I/b/d/n],[1-I/b/d/n],exp(2*I*a*d)*(c*x^n)^(2
*I*b*d))
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.267, Rules used = {4594, 4592, 470, 371}

$$\int x \cot (d(a+b \log (c x^n))) \, dx = \frac{i x^2}{2} - i x^2 \text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1 - \frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[x*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (I/2)*x^2 - I*x^2*Hypergeometric2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), E^((2*I
)*a*d)*(c*x^n)^((2*I)*b*d)]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^2}{2}-\frac{\left(2ix^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= \frac{ix^2}{2}-ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 219 vs. 2(68) = 136.

Time = 4.31 (sec) , antiderivative size = 219, normalized size of antiderivative = 3.22

$$\int x\cot(d(a+b\log(cx^n)))\,dx = -\frac{x^2\left(e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bdn},2-\frac{i}{bdn},e^{2id(a+b\log(cx^n))}\right)+(-i+bdn)\left(\cot(d(a+b\log\right.\right.}{}$$

```
[In] Integrate[x*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] -((x^2*(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - I/(b*d*n),
2 - I/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-I + b*d*n)*(Cot[d*(a + b
*Log[c*x^n])] - Cot[d*(a - b*n*Log[x] + b*Log[c*x^n])] + I*Hypergeometric2F
1[1, (-I)/(b*d*n), 1 - I/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + Csc[d*(
a + b*Log[c*x^n])]*Csc[d*(a - b*n*Log[x] + b*Log[c*x^n])]*Sin[b*d*n*Log[x]]
)))/(-2*I + 2*b*d*n))
```

Maple [F]

$$\int x\cot(d(a+b\ln(c\,x^n)))\,dx$$

```
[In] int(x*cot(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int(x*cot(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int x\cot(d(a+b\log(cx^n)))\,dx = \int x\cot((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral(x*cot(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int x \cot \left(d(a + b \log \left(cx^n\right))\right)\, dx = \int x \cot \left(ad + bd \log \left(cx^n\right)\right) dx$$

```
[In] integrate(x*cot(d*(a+b*ln(c*x**n))),x)
[Out] Integral(x*cot(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int x \cot \left(d(a + b \log \left(cx^n\right))\right)\, dx = \int x \cot \left((b \log \left(cx^n\right) + a)d\right)\, dx$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(x*cot((b*log(c*x^n) + a)*d), x)
```

Giac [F]

$$\int x \cot \left(d(a + b \log \left(cx^n\right))\right)\, dx = \int x \cot \left((b \log \left(cx^n\right) + a)d\right)\, dx$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] integrate(x*cot((b*log(c*x^n) + a)*d), x)
```

Mupad [F(-1)]

Timed out.

$$\int x \cot \left(d(a + b \log \left(cx^n\right))\right)\, dx = \int x \cot\left(d\left(a + b \ln\left(c\, x^n\right)\right)\right)\, dx$$

```
[In] int(x*cot(d*(a + b*log(c*x^n))),x)
[Out] int(x*cot(d*(a + b*log(c*x^n))), x)
```

3.212 $\int \cot (d(a+b\log (cx^n)))\,dx$

Optimal result 2217
Rubi [A] (verified) 2217
Mathematica [B] (verified) 2219
Maple [F] 2219
Fricas [F] 2219
Sympy [F] 2220
Maxima [F] 2220
Giac [F] 2220
Mupad [F(-1)] 2220

Optimal result

Integrand size = 13, antiderivative size = 66

$$\int \cot (d(a+b\log (cx^n)))\,dx = ix-2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] I*x-2*I*x*hypergeom([1, -1/2*I/b/d/n],[1-1/2*I/b/d/n],exp(2*I*a*d)*(c*x^n)^
(2*I*b*d))
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 66, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.308, Rules used = {4590, 4592, 470, 371}

$$\int \cot (d(a+b\log (cx^n)))\,dx = ix-2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] I*x - (2*I)*x*Hypergeometric2F1[1, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), E^(
(2*I)*a*d)*(c*x^n)^((2*I)*b*d)]
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4590

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cot[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= ix-\frac{\left(2ix(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{n}\\
&= ix-2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 141 vs. $2(66) = 132$.

Time = 8.06 (sec) , antiderivative size = 141, normalized size of antiderivative = 2.14

$$\int \cot(d(a+b\log(cx^n)))\,dx = x\left(-\frac{e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bdn},2-\frac{i}{2bdn},e^{2id(a+b\log(cx^n))}\right)}{-i+2bdn} - i\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2id(a+b\log(cx^n))}\right)\right)$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])],x]
[Out] x*(-((E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (I/2)/(b*d*n)
, 2 - (I/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])/(-I + 2*b*d*n)) - I*H
ypergeometric2F1[1, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), E^((2*I)*d*(a + b*
Log[c*x^n]))])
```

Maple [F]

$$\int \cot(d(a+b\ln(c\,x^n)))\,dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n))),x)
[Out] int(cot(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int \cot(d(a+b\log(cx^n)))\,dx = \int \cot((b\log(cx^n)+a)d)\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n))),x, algorithm="fricas")
[Out] integral(cot(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int \cot \left(d(a+b\log \left(cx^n\right))\right)\,dx=\int \cot \left(d(a+b\log \left(cx^n\right))\right)dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n))),x)
[Out] Integral(cot(d*(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \cot \left(d(a+b\log \left(cx^n\right))\right)\,dx=\int \cot \left((b\log \left(cx^n\right)+a)d\right)\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate(cot((b*log(c*x^n) + a)*d), x)
```

Giac [F]

$$\int \cot \left(d(a+b\log \left(cx^n\right))\right)\,dx=\int \cot \left((b\log \left(cx^n\right)+a)d\right)\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] integrate(cot((b*log(c*x^n) + a)*d), x)
```

Mupad [F(-1)]

Timed out.

$$\int \cot \left(d(a+b\log \left(cx^n\right))\right)\,dx=\int \cot\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n))),x)
[Out] int(cot(d*(a + b*log(c*x^n))), x)
```

3.213 $\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx$

Optimal result 2221
Rubi [A] (verified) 2221
Mathematica [A] (verified) 2222
Maple [A] (verified) 2222
Fricas [A] (verification not implemented) 2222
Sympy [B] (verification not implemented) 2223
Maxima [A] (verification not implemented) 2223
Giac [F(-1)] 2223
Mupad [B] (verification not implemented) 2224

Optimal result

Integrand size = 17, antiderivative size = 25

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = \frac{\log(\sin(ad+bd\log(cx^n)))}{bdn}$$

```
[Out] ln(sin(a*d+b*d*ln(c*x^n)))/b/d/n
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 25, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {3556}

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = \frac{\log(\sin(ad+bd\log(cx^n)))}{bdn}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]/x,x]
[Out] Log[Sin[a*d + b*d*Log[c*x^n]]]/(b*d*n)
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \cot(d(a+bx))\,dx, x, \log(cx^n)\right)}{n} \\ &= \frac{\log(\sin(ad+bd\log(cx^n)))}{bdn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.05 (sec) , antiderivative size = 50, normalized size of antiderivative = 2.00

$$\int \frac{\cot (d(a+b\log (cx^n)))}{x}\,dx=\frac{\log (\cos (d(a+b\log (cx^n))))}{bdn}+\frac{\log (\tan (ad+bd\log (cx^n)))}{bdn}$$

[In] Integrate[Cot[d*(a + b*Log[c*x^n])]/x,x]

[Out] Log[Cos[d*(a + b*Log[c*x^n])]]/(b*d*n) + Log[Tan[a*d + b*d*Log[c*x^n]]]/(b*d*n)

Maple [A] (verified)

Time = 0.29 (sec) , antiderivative size = 30, normalized size of antiderivative = 1.20

method	result
derivativedivides	$-\frac{\ln\left(\cot(d(a+b\ln(c\,x^n)))^2+1\right)}{2nbd}$
default	$-\frac{\ln\left(\cot(d(a+b\ln(c\,x^n)))^2+1\right)}{2nbd}$
parallelrisch	$\frac{\ln(\tan(d(a+b\ln(c\,x^n))))+\ln\left(\frac{1}{\sqrt{\sec(d(a+b\ln(c\,x^n)))^2}}\right)}{bdn}$
risch	$i\ln(x)-\frac{2ia}{nb}-\frac{2i\ln(c)}{n}-\frac{2i\ln(x^n)}{n}-\frac{\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}{n}+\frac{\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{n}+\frac{\pi\,\mathrm{csgn}(i}{}$

[In] int(cot(d*(a+b*ln(c*x^n)))/x,x,method=_RETURNVERBOSE)

[Out] -1/2/n/b/d*ln(cot(d*(a+b*ln(c*x^n)))^2+1)

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 35, normalized size of antiderivative = 1.40

$$\int \frac{\cot (d(a+b\log (cx^n)))}{x}\,dx=\frac{\log \left(-\frac{1}{2}\,\cos (2\,bdn\log (x)+2\,bd\log (c)+2\,ad)+\frac{1}{2}\right)}{2\,bdn}$$

[In] integrate(cot(d*(a+b*log(c*x^n)))/x,x, algorithm="fricas")

[Out] 1/2*log(-1/2*cos(2*b*d*n*log(x) + 2*b*d*log(c) + 2*a*d) + 1/2)/(b*d*n)

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 46 vs. 2(20) = 40.

Time = 1.34 (sec) , antiderivative size = 46, normalized size of antiderivative = 1.84

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = \begin{cases} \log(x)\cot(ad) & \text{for } b=0 \\ \tilde{\infty}\log(x) & \text{for } d=0 \\ \log(x)\cot(ad+bd\log(c)) & \text{for } n=0 \\ \frac{\log(\sin(ad+bd\log(cx^n)))}{bdn} & \text{otherwise} \end{cases}$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))/x,x)
```

```
[Out] Piecewise((log(x)*cot(a*d), Eq(b, 0)), (zoo*log(x), Eq(d, 0)), (log(x)*cot(
a*d + b*d*log(c)), Eq(n, 0)), (log(sin(a*d + b*d*log(c*x**n)))/(b*d*n), Tru
e))
```

Maxima [A] (verification not implemented)

none

Time = 0.19 (sec) , antiderivative size = 24, normalized size of antiderivative = 0.96

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = \frac{\log(\sin((b\log(cx^n)+a)d))}{bdn}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x,x, algorithm="maxima")
```

```
[Out] log(sin((b*log(c*x^n) + a)*d))/(b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x,x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.08 (sec) , antiderivative size = 37, normalized size of antiderivative = 1.48

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x}\,dx = -\ln(x)\ 1\mathrm{i} + \frac{\ln\left(\mathrm{e}^{a\,d\,2\mathrm{i}}\,(c\,x^n)^{b\,d\,2\mathrm{i}}-1\right)}{b\,d\,n}$$

```
[In] int(cot(d*(a + b*log(c*x^n)))/x,x)
[Out] log(exp(a*d*2i)*(c*x^n)^(b*d*2i) - 1)/(b*d*n) - log(x)*1i
```

3.214 $\int \frac{\cot(d(a+b\log(cx^n)))}{x^2}\,dx$

Optimal result 2225
Rubi [A] (verified) 2225
Mathematica [B] (verified) 2226
Maple [F] 2227
Fricas [F] 2227
Sympy [F] 2227
Maxima [F] 2228
Giac [F(-1)] 2228
Mupad [F(-1)] 2228

Optimal result

Integrand size = 17, antiderivative size = 70

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^2}\,dx = -\frac{i}{x}+\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x}$$

```
[Out] -I/x+2*I*hypergeom([1, 1/2*I/b/d/n],[1+1/2*I/b/d/n],exp(2*I*a*d)*(c*x^n)^(2
*I*b*d))/x
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4594, 4592, 470, 371}

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^2}\,dx = \frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x}-\frac{i}{x}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]/x^2,x]
```

```
[Out] (-I)/x + ((2*I)*Hypergeometric2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(b*d*n), E^((
2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/x
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{nx}\\
&= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx}\\
&= -\frac{i}{x}-\frac{\left(2i(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx}\\
&= -\frac{i}{x}+\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 217 vs. 2(70) = 140.

Time = 3.48 (sec) , antiderivative size = 217, normalized size of antiderivative = 3.10

$$\int \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx$$

$$= \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)-\cot\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)-\frac{e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{2bdn},2+\frac{i}{2bdn},\right.}{i+2bdn}}{}$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]/x^2,x]
```

```
[Out] (Cot[d*(a + b*Log[c*x^n])] - Cot[d*(a - b*n*Log[x] + b*Log[c*x^n])] - (E^((
2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + (I/2)/(b*d*n), 2 + (I/2
)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])/(I + 2*b*d*n) + I*Hypergeometri
c2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] +
 Csc[d*(a + b*Log[c*x^n])]*Csc[d*(a - b*n*Log[x] + b*Log[c*x^n])]*Sin[b*d*n
*Log[x]])/x
```

Maple [F]

$$\int \frac{\cot \left(d(a+b \ln \left(c \,x^{n}\right))\right)}{x^{2}}d x$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))/x^2,x)
```

```
[Out] int(cot(d*(a+b*ln(c*x^n)))/x^2,x)
```

Fricas [F]

$$\int \frac{\cot \left(d(a+b \log \left(cx^{n}\right))\right)}{x^{2}}\, dx = \int \frac{\cot \left({\left(b \log \left(c x^{n}\right) + a\right)} d\right)}{x^{2}} \,d x$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x^2,x, algorithm="fricas")
```

```
[Out] integral(cot(b*d*log(c*x^n) + a*d)/x^2, x)
```

Sympy [F]

$$\int \frac{\cot \left(d(a+b \log \left(cx^{n}\right))\right)}{x^{2}}\, dx = \int \frac{\cot{\left(a d + b d \log{\left(c x^{n} \right)} \right)}}{x^{2}}\, dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))/x**2,x)
```

```
[Out] Integral(cot(a*d + b*d*log(c*x**n))/x**2, x)
```

Maxima [F]

$$\int \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\cot\left((b\log\left(cx^n\right)+a)d\right)}{x^2}\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x^2,x, algorithm="maxima")
[Out] integrate(cot((b*log(c*x^n) + a)*d)/x^2, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx = \text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\cot(d\left(a+b\,\ln\left(c\,x^n\right)\right))}{x^2}\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))/x^2,x)
[Out] int(cot(d*(a + b*log(c*x^n)))/x^2, x)
```

3.215 $\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx$

Optimal result 2229
Rubi [A] (verified) 2229
Mathematica [B] (verified) 2230
Maple [F] 2231
Fricas [F] 2231
Sympy [F] 2231
Maxima [F] 2232
Giac [F] 2232
Mupad [F(-1)] 2232

Optimal result

Integrand size = 17, antiderivative size = 68

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx = -\frac{i}{2x^2}+\frac{i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x^2}$$

```
[Out] -1/2*I/x^2+I*hypergeom([1, I/b/d/n],[1+I/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b
*d))/x^2
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.235, Rules used = {4594, 4592, 470, 371}

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx = \frac{i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x^2}-\frac{i}{2x^2}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]/x^3,x]
```

```
[Out] (-1/2*I)/x^2 + (I*Hypergeometric2F1[1, I/(b*d*n), 1 + I/(b*d*n), E^((2*I)*a
*d)*(c*x^n)^((2*I)*b*d)])/x^2
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{nx^2} \\
&= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx^2} \\
&= -\frac{i}{2x^2}-\frac{\left(2i(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{nx^2} \\
&= -\frac{i}{2x^2}+\frac{i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{x^2}
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 211 vs. 2(68) = 136.

Time = 3.10 (sec) , antiderivative size = 211, normalized size of antiderivative = 3.10

$$
\int \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)}{x^3}\,dx
$$

$$
= \frac{\cot\left(d(a+b\log\left(cx^n\right))\right)-\cot\left(d(a-bn\log(x)+b\log\left(cx^n\right))\right)-\frac{e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bdn},2+\frac{i}{bdn},e^{2\cdots}\right.}{i+bdn}}{\cdots}
$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]/x^3,x]
```

```
[Out] (Cot[d*(a + b*Log[c*x^n])] - Cot[d*(a - b*n*Log[x] + b*Log[c*x^n])] - (E^((
2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + I/(b*d*n), 2 + I/(b*d*n
), E^((2*I)*d*(a + b*Log[c*x^n]))])/(I + b*d*n) + I*Hypergeometric2F1[1, I/
(b*d*n), 1 + I/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + Csc[d*(a + b*Log[
c*x^n])]*Csc[d*(a - b*n*Log[x] + b*Log[c*x^n])]*Sin[b*d*n*Log[x]])/(2*x^2)
```

Maple [F]

$$\int \frac{\cot \left(d(a+b\ln \left(c\,x^{n}\right))\right)}{x^{3}}dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))/x^3,x)
```

```
[Out] int(cot(d*(a+b*ln(c*x^n)))/x^3,x)
```

Fricas [F]

$$\int \frac{\cot \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{3}}\,dx=\int \frac{\cot \left((b\log \left(cx^{n}\right)+a)d\right)}{x^{3}}\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))/x^3,x, algorithm="fricas")
```

```
[Out] integral(cot(b*d*log(c*x^n) + a*d)/x^3, x)
```

Sympy [F]

$$\int \frac{\cot \left(d(a+b\log \left(cx^{n}\right))\right)}{x^{3}}\,dx=\int \frac{\cot \left(ad+bd\log \left(cx^{n}\right)\right)}{x^{3}}\,dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))/x**3,x)
```

```
[Out] Integral(cot(a*d + b*d*log(c*x**n))/x**3, x)
```

Maxima [F]

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\cot((b\log(cx^n)+a)d)}{x^3}\,dx$$

[In] integrate(cot(d*(a+b*log(c*x^n)))/x^3,x, algorithm="maxima")

[Out] integrate(cot((b*log(c*x^n) + a)*d)/x^3, x)

Giac [F]

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\cot((b\log(cx^n)+a)d)}{x^3}\,dx$$

[In] integrate(cot(d*(a+b*log(c*x^n)))/x^3,x, algorithm="giac")

[Out] integrate(cot((b*log(c*x^n) + a)*d)/x^3, x)

Mupad [F(-1)]

Timed out.

$$\int \frac{\cot(d(a+b\log(cx^n)))}{x^3}\,dx = \int \frac{\cot(d\,(a+b\,\ln(c\,x^n)))}{x^3}\,dx$$

[In] int(cot(d*(a + b*log(c*x^n)))/x^3,x)

[Out] int(cot(d*(a + b*log(c*x^n)))/x^3, x)

3.216 $\int x^3 \cot^2(d(a+b\log(cx^n)))\,dx$

Optimal result 2233
Rubi [A] (verified) 2233
Mathematica [A] (verified) 2235
Maple [F] 2236
Fricas [F] 2236
Sympy [F(-1)] 2236
Maxima [F] 2236
Giac [F(-1)] 2237
Mupad [F(-1)] 2237

Optimal result

Integrand size = 19, antiderivative size = 158

$$\int x^3 \cot^2(d(a+b\log(cx^n)))\,dx = \frac{(4i-bdn)x^4}{4bdn} + \frac{ix^4\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/4*(4*I-b*d*n)*x^4/b/d/n+I*x^4*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^4*hypergeom([1, -2*I/b/d/n],[1-2*I/b
/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.20 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.263$, Rules used = {4594, 4592, 516, 470, 371}

$$\int x^3 \cot^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^4\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{x^4(-bdn+4i)}{4bdn}$$

```
[In] Int[x^3*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((4*I - b*d*n)*x^4)/(4*b*d*n) + (I*x^4*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^4*Hypergeom
etric2F1[1, (-2*I)/(b*d*n), 1 - (2*I)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)
*b*d)])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int x^{-1+\frac{4}{n}}\cot^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{ix^4\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(ie^{-2iad}x^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}\left(\frac{2e^{2iad}(4-ibdn)}{n}+\frac{2e^{4iad}(4+ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdn}$$

$$= -\frac{1}{4}\left(1-\frac{4i}{bdn}\right)x^4 + \frac{ix^4\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(8ix^4(cx^n)^{-4/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{4}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2}$$

$$= -\frac{1}{4}\left(1-\frac{4i}{bdn}\right)x^4 + \frac{ix^4\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{2ix^4\,\text{Hypergeometric2F1}\left(1,-\frac{2i}{bdn},1-\frac{2i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 3.74 (sec) , antiderivative size = 175, normalized size of antiderivative = 1.11

$$\int x^3\cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = -\frac{x^4\left(8e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{2i}{bdn},2-\frac{2i}{bdn},e^{2id(a+b\log(cx^n))}\right)+(-2i+bdn)\left(bdn+4\cot\right.\right.}{4bdn(-2i+bdn)}$$

```
[In] Integrate[x^3*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/4*(x^4*(8*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (2*I)/
(b*d*n), 2 - (2*I)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-2*I + b*d*n
)*(b*d*n + 4*Cot[d*(a + b*Log[c*x^n])] + (4*I)*Hypergeometric2F1[1, (-2*I)/
(b*d*n), 1 - (2*I)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])))/(b*d*n*(-2*I
 + b*d*n))
```

Maple [F]

$$\int x^3 \cot\left(d(a+b\ln\left(c\,x^n\right))\right)^2 dx$$

[In] int(x^3*cot(d*(a+b*ln(c*x^n)))^2,x)

[Out] int(x^3*cot(d*(a+b*ln(c*x^n)))^2,x)

Fricas [F]

$$\int x^3 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int x^3 \cot\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^3*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")

[Out] integral(x^3*cot(b*d*log(c*x^n) + a*d)^2, x)

Sympy [F(-1)]

Timed out.

$$\int x^3 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \text{Timed out}$$

[In] integrate(x**3*cot(d*(a+b*ln(c*x**n)))**2,x)

[Out] Timed out

Maxima [F]

$$\int x^3 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int x^3 \cot\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

[In] integrate(x^3*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")

```
[Out] 1/4*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^4*cos(2*b*d*lo
g(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x
^4*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^4 - 2*(b*d*n*cos(2*b*d*log(c)) -
 4*sin(2*b*d*log(c)))*x^4*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*n*sin(2*b*d*
log(c)) + 4*cos(2*b*d*log(c)))*x^4*sin(2*b*d*log(x^n) + 2*a*d) - 16*(2*b^2*
d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2
*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d
*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2
 - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*
```

```
d*log(x^n) + 2*a*d)^2)*integrate((x^3*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c
)) + x^3*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*lo
g(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x
^n) + a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log
(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^
2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x) + 16*(2*b^2*d^2*n^2
*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*lo
g(c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*log(c)
)^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2
*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x
^n) + 2*a*d)^2)*integrate(-(x^3*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x
^3*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*
cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) +
a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2
)*n^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(
b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c
))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^
n) + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b
*d*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2
)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x^3 \cot^2 (d(a + b \log (cx^n))) \, dx = \text{Timed out}$$

```
[In] integrate(x^3*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^3 \cot^2 (d(a + b \log (cx^n))) \, dx = \int x^3 \cot(d\,(a + b\,\ln(c\,x^n)))^2 \, dx$$

```
[In] int(x^3*cot(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x^3*cot(d*(a + b*log(c*x^n)))^2, x)
```

3.217 $\int x^2 \cot^2(d(a+b\log(cx^n)))\,dx$

Optimal result 2238
Rubi [A] (verified) 2238
Mathematica [A] (verified) 2240
Maple [F] 2241
Fricas [F] 2241
Sympy [F] 2241
Maxima [F] 2241
Giac [F(-1)] 2242
Mupad [F(-1)] 2242

Optimal result

Integrand size = 19, antiderivative size = 162

$$\int x^2 \cot^2(d(a+b\log(cx^n)))\,dx = \frac{(3i-bdn)x^3}{3bdn} + \frac{ix^3\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/3*(3*I-b*d*n)*x^3/b/d/n+I*x^3*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^3*hypergeom([1, -3/2*I/b/d/n],[1-3/2
*I/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.21 (sec) , antiderivative size = 162, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.263$, Rules used = {4594, 4592, 516, 470, 371}

$$\int x^2 \cot^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^3\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{x^3(-bdn+3i)}{3bdn}$$

```
[In] Int[x^2*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((3*I - b*d*n)*x^3)/(3*b*d*n) + (I*x^3*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^3*Hypergeom
etric2F1[1, ((-3*I)/2)/(b*d*n), 1 - ((3*I)/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n
)^((2*I)*b*d)])/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\cot^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{ix^3\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(ie^{-2iad}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}\left(\frac{2e^{2iad}(3-ibdn)}{n}+\frac{2e^{4iad}(3+ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdn}$$

$$= -\frac{1}{3}\left(1-\frac{3i}{bdn}\right)x^3 + \frac{ix^3\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(6ix^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{3}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2}$$

$$= -\frac{1}{3}\left(1-\frac{3i}{bdn}\right)x^3 + \frac{ix^3\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^3\,\text{Hypergeometric2F1}\left(1,-\frac{3i}{2bdn},1-\frac{3i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 3.95 (sec) , antiderivative size = 185, normalized size of antiderivative = 1.14

$$\int x^2\cot^2(d(a+b\log(cx^n)))\,dx = -\frac{x^3\left(9e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{3i}{2bdn},2-\frac{3i}{2bdn},e^{2id(a+b\log(cx^n))}\right)+(-3i+2bdn)\left(bdn+3\,\text{c}\right.\right.}{3bdn(-3i+2bdn)}$$

```
[In] Integrate[x^2*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/3*(x^3*(9*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - ((3*I)
/2)/(b*d*n), 2 - ((3*I)/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-3*I
 + 2*b*d*n)*(b*d*n + 3*Cot[d*(a + b*Log[c*x^n])] + (3*I)*Hypergeometric2F1[
1, ((-3*I)/2)/(b*d*n), 1 - ((3*I)/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n])
)])))/(b*d*n*(-3*I + 2*b*d*n))
```

Maple [F]

$$\int x^2 \cot \left(d(a+b\ln \left(c\,x^n\right))\right)^2 dx$$

```
[In] int(x^2*cot(d*(a+b*ln(c*x^n)))^2,x)
[Out] int(x^2*cot(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int x^2 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\, dx = \int x^2 \cot\left((b\log\left(cx^n\right)+a)d\right)^2\, dx$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral(x^2*cot(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int x^2 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\, dx = \int x^2 \cot^2\left(ad+bd\log\left(cx^n\right)\right) dx$$

```
[In] integrate(x**2*cot(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral(x**2*cot(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x^2 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\, dx = \int x^2 \cot\left((b\log\left(cx^n\right)+a)d\right)^2\, dx$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] 1/3*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^3*cos(2*b*d*lo
g(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x
^3*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^3 - 2*(b*d*n*cos(2*b*d*log(c)) -
 3*sin(2*b*d*log(c)))*x^3*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*n*sin(2*b*d*
log(c)) + 3*cos(2*b*d*log(c)))*x^3*sin(2*b*d*log(x^n) + 2*a*d) - 9*(2*b^2*d
^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*
b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*
log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2
- (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d
```

```
*log(x^n) + 2*a*d)^2)*integrate((x^2*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)
) + x^2*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log
(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^
n) + a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(
c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2
*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x) + 9*(2*b^2*d^2*n^2*c
os(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(
c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*log(c))^
2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d
^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n
) + 2*a*d)^2)*integrate(-(x^2*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^2
*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*co
s(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*
d) - b^2*d^2*n^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*
n^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*
d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))
*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^n)
 + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d
*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*
n*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x^2 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\text{Timed out}$$

```
[In] integrate(x^2*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x^2\,{\mathrm{cot}\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}^2\,dx$$

```
[In] int(x^2*cot(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x^2*cot(d*(a + b*log(c*x^n)))^2, x)
```

3.218 $\int x \cot^2(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 2243
Rubi [A] (verified) . . . 2243
Mathematica [A] (verified) . . . 2245
Maple [F] . . . 2246
Fricas [F] . . . 2246
Sympy [F] . . . 2246
Maxima [F] . . . 2246
Giac [F(-1)] . . . 2247
Mupad [F(-1)] . . . 2247

Optimal result

Integrand size = 17, antiderivative size = 158

$$\int x\cot^2(d(a+b\log(cx^n)))\,dx = \frac{(2i-bdn)x^2}{2bdn}+\frac{ix^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] 1/2*(2*I-b*d*n)*x^2/b/d/n+I*x^2*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1
-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*x^2*hypergeom([1, -I/b/d/n],[1-I/b/d/n
],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.20 (sec) , antiderivative size = 158, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.294, Rules used = {4594, 4592, 516, 470, 371}

$$\int x\cot^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)}+\frac{x^2(-bdn+2i)}{2bdn}$$

```
[In] Int[x*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((2*I - b*d*n)*x^2)/(2*b*d*n) + (I*x^2*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*
d)))/(b*d*n*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x^2*Hypergeom
etric2F1[1, (-I)/(b*d*n), 1 - I/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)]
)/(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\cot^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{ix^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(ie^{-2iad}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}\left(\frac{2e^{2iad}(2-ibdn)}{n}+\frac{2e^{4iad}(2+ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdn}$$

$$= -\frac{1}{2}\left(1-\frac{2i}{bdn}\right)x^2 + \frac{ix^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(4ix^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{2}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2}$$

$$= -\frac{1}{2}\left(1-\frac{2i}{bdn}\right)x^2 + \frac{ix^2\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{2ix^2\,\text{Hypergeometric2F1}\left(1,-\frac{i}{bdn},1-\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 3.89 (sec) , antiderivative size = 175, normalized size of antiderivative = 1.11

$$\int x\cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = -\frac{x^2\left(2e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bdn},2-\frac{i}{bdn},e^{2id(a+b\log(cx^n))}\right)+(-i+bdn)\left(bdn+2\cot\right.\right.}{2bdn(-i+bdn)}$$

```
[In] Integrate[x*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -1/2*(x^2*(2*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - I/(b*d
*n), 2 - I/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-I + b*d*n)*(b*d*n +
 2*Cot[d*(a + b*Log[c*x^n])] + (2*I)*Hypergeometric2F1[1, (-I)/(b*d*n), 1 -
 I/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])))/(b*d*n*(-I + b*d*n))
```

Maple [F]

$$\int x\cot\left(d(a+b\ln\left(c\,x^{n}\right))\right)^{2}dx$$

```
[In] int(x*cot(d*(a+b*ln(c*x^n)))^2,x)
[Out] int(x*cot(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int x\cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\cot\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral(x*cot(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int x\cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\cot^2\left(ad+bd\log\left(cx^n\right)\right)dx$$

```
[In] integrate(x*cot(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral(x*cot(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x\cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int x\cot\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] 1/2*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^2*cos(2*b*d*lo
g(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x
^2*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x^2 - 2*(b*d*n*cos(2*b*d*log(c)) -
 2*sin(2*b*d*log(c)))*x^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*n*sin(2*b*d*
log(c)) + 2*cos(2*b*d*log(c)))*x^2*sin(2*b*d*log(x^n) + 2*a*d) - 4*(2*b^2*d
^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*
b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*
log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2
- (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d
```

```
*log(x^n) + 2*a*d)^2)*integrate((x*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c))
+ x*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))
*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) +
 a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^
2)*n^2*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin
(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x) + 4*(2*b^2*d^2*n^2*cos(2
*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*
sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*log(c))^2 +
b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*c
os(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) +
2*a*d)^2)*integrate(-(x*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x*cos(b*d
*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*cos(b*d*lo
g(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) - b^2
*d^2*n^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*cos(
b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c)
)^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b
*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d
) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n
) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*
b*d*log(x^n) + 2*a*d)^2 - b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int x\cot^2(d(a+b\log(cx^n)))\,dx=\text{Timed out}$$

```
[In] integrate(x*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x\cot^2(d(a+b\log(cx^n)))\,dx=\int x\,\cot(d\,(a+b\,\ln(c\,x^n)))^2\,dx$$

```
[In] int(x*cot(d*(a + b*log(c*x^n)))^2,x)
[Out] int(x*cot(d*(a + b*log(c*x^n)))^2, x)
```

3.219 $\int \cot^2(d(a+b\log(cx^n)))\,dx$

Optimal result 2248
Rubi [A] (verified) 2248
Mathematica [A] (verified) 2250
Maple [F] 2251
Fricas [F] 2251
Sympy [F] 2251
Maxima [F] 2251
Giac [F(-1)] 2252
Mupad [F(-1)] 2252

Optimal result

Integrand size = 15, antiderivative size = 153

$$\int \cot^2(d(a+b\log(cx^n)))\,dx = \frac{(i-bdn)x}{bdn}+\frac{ix\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

```
[Out] (I-b*d*n)*x/b/d/n+I*x*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/(1-exp(2*I*a
*d)*(c*x^n)^(2*I*b*d))-2*I*x*hypergeom([1, -1/2*I/b/d/n],[1-1/2*I/b/d/n],ex
p(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n
```

Rubi [A] (verified)

Time = 0.18 (sec) , antiderivative size = 153, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.333, Rules used = {4590, 4592, 516, 470, 371}

$$\int \cot^2(d(a+b\log(cx^n)))\,dx = -\frac{2ix\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bdn},1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdn} + \frac{ix\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}(cx^n)^{2ibd}\right)}+\frac{x(-bdn+i)}{bdn}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((I - b*d*n)*x)/(b*d*n) + (I*x*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*
d*n*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*x*Hypergeometric2F1[1
, (-1/2*I)/(b*d*n), 1 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/
(b*d*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4590

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cot[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cot^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx, x, cx^n\right)}{n}$$

$$= \frac{ix\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(ie^{-2iad}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}\left(\frac{2e^{2iad}(1-ibdn)}{n}+\frac{2e^{4iad}(1+ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bdn}$$

$$= -\left(\left(1-\frac{i}{bdn}\right)x\right) + \frac{ix\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{\left(2ix(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{1-e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bdn^2}$$

$$= -\left(\left(1-\frac{i}{bdn}\right)x\right) + \frac{ix\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdn\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)} - \frac{2ix\,\text{Hypergeometric2F1}\left(1, -\frac{i}{2bdn}, 1-\frac{i}{2bdn}, e^{2iad}(cx^n)^{2ibd}\right)}{bdn}$$

Mathematica [A] (verified)

Time = 7.80 (sec) , antiderivative size = 178, normalized size of antiderivative = 1.16

$$\int \cot^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = -\frac{x\left(e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1, 1-\frac{i}{2bdn}, 2-\frac{i}{2bdn}, e^{2id(a+b\log(cx^n))}\right) + (-i+2bdn)\left(bdn+\cot\left(d\right.\right.\right.}{bdn(-i+2bdn)}$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -((x*(E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 - (I/2)/(b*d*n)
, 2 - (I/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (-I + 2*b*d*n)*(b*d*
n + Cot[d*(a + b*Log[c*x^n])] + I*Hypergeometric2F1[1, (-1/2*I)/(b*d*n), 1
- (I/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))])))/(b*d*n*(-I + 2*b*d*n)))
```

Maple [F]

$$\int \cot \left(d(a+b\ln \left(c\,x^{n}\right))\right)^{2}dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))^2,x)
[Out] int(cot(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int \cot^2 \left(d(a+b\log \left(cx^n\right))\right) \, dx = \int \cot \left((b\log \left(cx^n\right)+a)d\right)^2 \, dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral(cot(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int \cot^2 \left(d(a+b\log \left(cx^n\right))\right) \, dx = \int \cot^2 \left(d(a+b\log \left(cx^n\right))\right) dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral(cot(d*(a + b*log(c*x**n)))**2, x)
```

Maxima [F]

$$\int \cot^2 \left(d(a+b\log \left(cx^n\right))\right) \, dx = \int \cot \left((b\log \left(cx^n\right)+a)d\right)^2 \, dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] ((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*cos(2*b*d*log(x^n)
 + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x*sin(2
*b*d*log(x^n) + 2*a*d)^2 + b*d*n*x - 2*(b*d*n*cos(2*b*d*log(c)) - sin(2*b*d
*log(c)))*x*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*n*sin(2*b*d*log(c)) + cos(
2*b*d*log(c)))*x*sin(2*b*d*log(x^n) + 2*a*d) - (2*b^2*d^2*n^2*cos(2*b*d*log
(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*
d*log(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*
sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*cos(2*b*d
*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2
```

```
)*integrate((cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + cos(b*d*log(c))*sin(
b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d)
 - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) + b^2*d^2*n^2 + (b
^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*cos(b*d*log(x^n)
+ a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*sin(
b*d*log(x^n) + a*d)^2), x) + (2*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*log
(x^n) + 2*a*d) - 2*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d
) - b^2*d^2*n^2 - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^
2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d
^2*sin(2*b*d*log(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2)*integrate(-(cos(
b*d*log(x^n) + a*d)*sin(b*d*log(c)) + cos(b*d*log(c))*sin(b*d*log(x^n) + a*
d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*
sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(b*d*lo
g(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d
^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*
d)^2), x))/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n
*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 +
 b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*
log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*
n)
```

Giac [F(-1)]

Timed out.

$$\int \cot^2(d(a+b\log(cx^n)))\,dx=\text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \cot^2(d(a+b\log(cx^n)))\,dx=\int \cot(d\,(a+b\,\ln(c\,x^n)))^2\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^2,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^2, x)
```

3.220 $\int \frac{\cot^2(d(a+b\log(cx^n)))}{x} \, dx$

Optimal result . . . 2253
Rubi [A] (verified) . . . 2253
Mathematica [C] (verified) . . . 2254
Maple [A] (verified) . . . 2254
Fricas [B] (verification not implemented) . . . 2255
Sympy [F] . . . 2255
Maxima [B] (verification not implemented) . . . 2255
Giac [F(-1)] . . . 2256
Mupad [B] (verification not implemented) . . . 2256

Optimal result

Integrand size = 19, antiderivative size = 30

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x} \, dx = -\frac{\cot(ad+bd\log(cx^n))}{bdn} - \log(x)$$

```
[Out] -cot(a*d+b*d*ln(c*x^n))/b/d/n-ln(x)
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 30, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.105$, Rules used = {3554, 8}

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x} \, dx = -\frac{\cot(ad+bd\log(cx^n))}{bdn} - \log(x)$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]^2/x,x]
```

```
[Out] -(Cot[a*d + b*d*Log[c*x^n]]/(b*d*n)) - Log[x]
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \cot^2(d(a+bx))\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\cot\left(ad+bd\log\left(cx^n\right)\right)}{bdn} - \frac{\text{Subst}\left(\int 1\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\cot\left(ad+bd\log\left(cx^n\right)\right)}{bdn} - \log(x)
\end{aligned}$$

Mathematica [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.10 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.70

$$\int \frac{\cot^2\left(d\left(a+b\log\left(cx^n\right)\right)\right)}{x}\,dx = -\frac{\cot\left(ad+bd\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(-\frac{1}{2},1,\frac{1}{2},-\tan^2\left(ad+bd\log\left(cx^n\right)\right)\right)}{bdn}$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]^2/x,x]
[Out] -((Cot[a*d + b*d*Log[c*x^n]]*Hypergeometric2F1[-1/2, 1, 1/2, -Tan[a*d + b*d
*Log[c*x^n]]^2])/(b*d*n))
```

Maple [A] (verified)

Time = 0.32 (sec) , antiderivative size = 46, normalized size of antiderivative = 1.53

method	result
derivativedivides	$\frac{-\cot(d(a+b\ln(c\,x^n)))+\frac{\pi}{2}-\operatorname{arccot}(\cot(d(a+b\ln(c\,x^n))))}{nbd}$
default	$\frac{-\cot(d(a+b\ln(c\,x^n)))+\frac{\pi}{2}-\operatorname{arccot}(\cot(d(a+b\ln(c\,x^n))))}{nbd}$
parallelrisch	$\frac{-1-\ln(x)bdn\tan(d(a+b\ln(c\,x^n)))}{bdn\tan(d(a+b\ln(c\,x^n)))}$
risch	$-\ln\left(x\right)-\frac{2i}{dbn\left(\left(x^n\right)^{2ibd}c^{2ibd}\mathrm{e}^{d\left(-b\pi\ \operatorname{csgn}(ix^n)\operatorname{csgn}(ic\,x^n)^2+b\pi\ \operatorname{csgn}(ix^n)\operatorname{csgn}(ic\,x^n)\operatorname{csgn}(ic)+b\pi\operatorname{csgn}(ic\,x^n)^3-b\pi\operatorname{csgn}(ic\,x^n\right.}\right.}$

```
[In] int(cot(d*(a+b*ln(c*x^n)))^2/x,x,method=_RETURNVERBOSE)
[Out] 1/n/b/d*(-cot(d*(a+b*ln(c*x^n)))+1/2*Pi-arccot(cot(d*(a+b*ln(c*x^n)))))
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 78 vs. 2(30) = 60.

Time = 0.24 (sec) , antiderivative size = 78, normalized size of antiderivative = 2.60

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x}\,dx = -\frac{bdn\log(x)\sin(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)+\cos(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)+1}{bdn\sin(2\,bdn\log(x)+2\,bd\log(c)+2\,ad)}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x,x, algorithm="fricas")
[Out] -(b*d*n*log(x)*sin(2*b*d*n*log(x) + 2*b*d*log(c) + 2*a*d) + cos(2*b*d*n*log
(x) + 2*b*d*log(c) + 2*a*d) + 1)/(b*d*n*sin(2*b*d*n*log(x) + 2*b*d*log(c) +
 2*a*d))
```

Sympy [F]

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x}\,dx = \int \frac{\cot^2(ad+bd\log(cx^n))}{x}\,dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))**2/x,x)
[Out] Integral(cot(a*d + b*d*log(c*x**n))**2/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 322 vs. 2(30) = 60.

Time = 0.21 (sec) , antiderivative size = 322, normalized size of antiderivative = 10.73

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x}\,dx = \frac{(bd\cos(2\,bd\log(c))^2+bd\sin(2\,bd\log(c))^2)n\cos(2\,bd\log(x^n)+2\,ad)^2\log(x)+(bd\cos(2\,bd\log(c))^2+b}{2\,bdn\cos(2\,bd\log(c))\cos(2\,bd\log(x^n)+2\,ad)-2\,bdn\sin(2\,bd\log}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x,x, algorithm="maxima")
[Out] ((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) +
 2*a*d)^2*log(x) + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*lo
g(x)*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*n*log(x) - 2*(b*d*n*cos(2*b*d*log(
c))*log(x) - sin(2*b*d*log(c)))*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*n*log(
x)*sin(2*b*d*log(c)) + cos(2*b*d*log(c)))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b
*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d*log(
c))*sin(2*b*d*log(x^n) + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*
log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2 + b*d
*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*n)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x,x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.93 (sec) , antiderivative size = 39, normalized size of antiderivative = 1.30

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x}\,dx = -\ln(x) - \frac{2i}{b\,d\,n\,\left(e^{a\,d\,2i}\,(c\,x^n)^{b\,d\,2i} - 1\right)}$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^2/x,x)
```

```
[Out] - log(x) - 2i/(b*d*n*(exp(a*d*2i)*(c*x^n)^(b*d*2i) - 1))
```

3.221 $\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^2} dx$

Optimal result . . . 2257
Rubi [A] (verified) . . . 2257
Mathematica [A] (verified) . . . 2259
Maple [F] . . . 2260
Fricas [F] . . . 2260
Sympy [F] . . . 2260
Maxima [F] . . . 2260
Giac [F(-1)] . . . 2261
Mupad [F(-1)] . . . 2261

Optimal result

Integrand size = 19, antiderivative size = 156

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^2} dx = \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdnx}$$

```
[Out] (1+I/b/d/n)/x+I*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x/(1-exp(2*I*a*d)*
(c*x^n)^(2*I*b*d))-2*I*hypergeom([1, 1/2*I/b/d/n],[1+1/2*I/b/d/n],exp(2*I*a
*d)*(c*x^n)^(2*I*b*d))/b/d/n/x
```

Rubi [A] (verified)

Time = 0.19 (sec) , antiderivative size = 156, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.263, Rules used = {4594, 4592, 516, 470, 371}

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^2} dx = -\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{2bdn},1+\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdnx} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{1+\frac{i}{bdn}}{x}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]^2/x^2,x]
```

```
[Out] (1 + I/(b*d*n))/x + (I*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*d*n*x*(1
 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*Hypergeometric2F1[1, (I/2)/
(b*d*n), 1 + (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(b*d*n*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{\frac{1}{n}} \operatorname{Subst}\left(\int x^{-1-\frac{1}{n}} \cot^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{nx}$$

$$
\begin{aligned}
&= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx, x, cx^n\right)}{nx} \\
&= \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1-e^{2iad}\,(cx^n)^{2ibd}\right)} \\
&\quad - \frac{\left(ie^{-2iad}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}\left(-\frac{2e^{2iad}(1+ibdn)}{n}-\frac{2e^{4iad}(1-ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{2bdnx} \\
&= \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1-e^{2iad}\,(cx^n)^{2ibd}\right)} + \frac{\left(2i(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{1}{n}}}{1-e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{bdn^2x} \\
&= \frac{1+\frac{i}{bdn}}{x} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx\left(1-e^{2iad}\,(cx^n)^{2ibd}\right)} \\
&\quad - \frac{2i\,\text{Hypergeometric2F1}\left(1, \frac{i}{2bdn}, 1+\frac{i}{2bdn}, e^{2iad}(cx^n)^{2ibd}\right)}{bdnx}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 3.33 (sec) , antiderivative size = 181, normalized size of antiderivative = 1.16

$$
\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^2}\,dx
= \frac{e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1, 1+\frac{i}{2bdn}, 2+\frac{i}{2bdn}, e^{2id(a+b\log(cx^n))}\right) + (i+2bdn)\left(bdn - \cot\left(d(a+b\right.\right.}{bdn(i+2bdn)x}
$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]^2/x^2,x]
```

```
[Out] (E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + (I/2)/(b*d*n), 2 +
 (I/2)/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (I + 2*b*d*n)*(b*d*n - Co
t[d*(a + b*Log[c*x^n])] - I*Hypergeometric2F1[1, (I/2)/(b*d*n), 1 + (I/2)/(
b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))]))/(b*d*n*(I + 2*b*d*n)*x)
```

Maple [F]

$$\int \frac{\cot\left(d(a+b\ln\left(c\,x^{n}\right))\right)^{2}}{x^{2}}dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))^2/x^2,x)
[Out] int(cot(d*(a+b*ln(c*x^n)))^2/x^2,x)
```

Fricas [F]

$$\int \frac{\cot^{2}\left(d(a+b\log\left(cx^{n}\right))\right)}{x^{2}}\,dx = \int \frac{\cot\left((b\log\left(cx^{n}\right)+a)d\right)^{2}}{x^{2}}\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="fricas")
[Out] integral(cot(b*d*log(c*x^n) + a*d)^2/x^2, x)
```

Sympy [F]

$$\int \frac{\cot^{2}\left(d(a+b\log\left(cx^{n}\right))\right)}{x^{2}}\,dx = \int \frac{\cot^{2}\left(ad+bd\log\left(cx^{n}\right)\right)}{x^{2}}\,dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))**2/x**2,x)
[Out] Integral(cot(a*d + b*d*log(c*x**n))**2/x**2, x)
```

Maxima [F]

$$\int \frac{\cot^{2}\left(d(a+b\log\left(cx^{n}\right))\right)}{x^{2}}\,dx = \int \frac{\cot\left((b\log\left(cx^{n}\right)+a)d\right)^{2}}{x^{2}}\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="maxima")
[Out] -((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x^n)
+ 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*
d*log(x^n) + 2*a*d)^2 + b*d*n - 2*(b*d*n*cos(2*b*d*log(c)) + sin(2*b*d*log(
c)))*cos(2*b*d*log(x^n) + 2*a*d) - (2*b^2*d^2*n^2*x*cos(2*b*d*log(c))*cos(2
*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x*sin(2*b*d*log(c))*sin(2*b*d*log(x^
n) + 2*a*d) - b^2*d^2*n^2*x - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*
b*d*log(c))^2)*n^2*x*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*cos(2*b*d*log
(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x*sin(2*b*d*log(x^n) + 2*a*d)^2)*
```

```
integrate((cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + cos(b*d*log(c))*sin(b*
d*log(x^n) + a*d))/(2*b^2*d^2*n^2*x^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*
d) - 2*b^2*d^2*n^2*x^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) + b^2*d^2*n^
2*x^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*x^2*cos
(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c
))^2)*n^2*x^2*sin(b*d*log(x^n) + a*d)^2), x) + (2*b^2*d^2*n^2*x*cos(2*b*d*l
og(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x*sin(2*b*d*log(c))*sin(
2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2*x - (b^2*d^2*cos(2*b*d*log(c))^2 + b^
2*d^2*sin(2*b*d*log(c))^2)*n^2*x*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*c
os(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x*sin(2*b*d*log(x^n)
+ 2*a*d)^2)*integrate(-(cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + cos(b*d*l
og(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*x^2*cos(b*d*log(c))*cos(b*d*
log(x^n) + a*d) - 2*b^2*d^2*n^2*x^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d)
 - b^2*d^2*n^2*x^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2
)*n^2*x^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*
sin(b*d*log(c))^2)*n^2*x^2*sin(b*d*log(x^n) + a*d)^2), x) + 2*(b*d*n*sin(2*
b*d*log(c)) - cos(2*b*d*log(c)))*sin(2*b*d*log(x^n) + 2*a*d))/(2*b*d*n*x*co
s(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*x*sin(2*b*d*log(c))*s
in(2*b*d*log(x^n) + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c
))^2)*n*x*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2 + b*d*si
n(2*b*d*log(c))^2)*n*x*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*n*x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^2\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx = \text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^2,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\cot^2\left(d(a+b\log\left(cx^n\right))\right)}{x^2}\,dx = \int \frac{\cot\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^2}{x^2}\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^2/x^2,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^2/x^2, x)
```

3.222 $\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^3}\,dx$

Optimal result . . . 2262
Rubi [A] (verified) . . . 2262
Mathematica [A] (verified) . . . 2264
Maple [F] . . . 2264
Fricas [F] . . . 2265
Sympy [F] . . . 2265
Maxima [F] . . . 2265
Giac [F] . . . 2266
Mupad [F(-1)] . . . 2266

Optimal result

Integrand size = 19, antiderivative size = 155

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^3}\,dx = \frac{1+\frac{2i}{bdn}}{2x^2} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2}$$

```
[Out] 1/2*(1+2*I/b/d/n)/x^2+I*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x^2/(1-exp
(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*hypergeom([1, I/b/d/n],[1+I/b/d/n],exp(2*I
*a*d)*(c*x^n)^(2*I*b*d))/b/d/n/x^2
```

Rubi [A] (verified)

Time = 0.22 (sec) , antiderivative size = 155, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.263$, Rules used = {4594, 4592, 516, 470, 371}

$$\int \frac{\cot^2(d(a+b\log(cx^n)))}{x^3}\,dx = -\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2} + \frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{1+\frac{2i}{bdn}}{2x^2}$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]^2/x^3,x]
```

```
[Out] (1 + (2*I)/(b*d*n))/(2*x^2) + (I*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(
b*d*n*x^2*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))) - ((2*I)*Hypergeometric2
```

```
F1[1, I/(b*d*n), 1 + I/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(b*d*n*
x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\cot^2(d(a+b\log(x)))\,dx, x, cx^n\right)}{nx^2}$$

$$=\frac{(cx^n)^{2/n}\,\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{nx^2}$$

$$=\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)}$$

$$-\frac{\left(ie^{-2iad}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}\left(-\frac{2e^{2iad}(2+ibdn)}{n}-\frac{2e^{4iad}(2-ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bdnx^2}$$

$$=\frac{1+\frac{2i}{bdn}}{2x^2}+\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)}+\frac{\left(4i(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1-\frac{2}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bdn^2x^2}$$

$$=\frac{1+\frac{2i}{bdn}}{2x^2}+\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2\left(1-e^{2iad}\left(cx^n\right)^{2ibd}\right)}-\frac{2i\,\text{Hypergeometric2F1}\left(1,\frac{i}{bdn},1+\frac{i}{bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bdnx^2}$$

Mathematica [A] (verified)

Time = 3.00 (sec) , antiderivative size = 175, normalized size of antiderivative = 1.13

$$\int \frac{\cot^2\left(d(a+b\log\left(cx^n\right))\right)}{x^3}\,dx$$
$$=\frac{2e^{2id(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bdn},2+\frac{i}{bdn},e^{2id(a+b\log(cx^n))}\right)+(i+bdn)\left(bdn-2\cot\left(d(a+b\log\right.\right.}{2bdn(i+bdn)x^2}$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]^2/x^3,x]
```

```
[Out] (2*E^((2*I)*d*(a + b*Log[c*x^n]))*Hypergeometric2F1[1, 1 + I/(b*d*n), 2 + I
/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (I + b*d*n)*(b*d*n - 2*Cot[d*(a
 + b*Log[c*x^n])] - (2*I)*Hypergeometric2F1[1, I/(b*d*n), 1 + I/(b*d*n), E^
((2*I)*d*(a + b*Log[c*x^n]))]))/(2*b*d*n*(I + b*d*n)*x^2)
```

Maple [F]

$$\int \frac{\cot\left(d(a+b\ln\left(c\,x^n\right))\right)^2}{x^3}dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))^2/x^3,x)
```

```
[Out] int(cot(d*(a+b*ln(c*x^n)))^2/x^3,x)
```

Fricas [F]

$$\int \frac{\cot^2(d(a + b\log(cx^n)))}{x^3} dx = \int \frac{\cot((b\log(cx^n) + a)d)^2}{x^3} dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="fricas")
[Out] integral(cot(b*d*log(c*x^n) + a*d)^2/x^3, x)
```

Sympy [F]

$$\int \frac{\cot^2(d(a + b\log(cx^n)))}{x^3} dx = \int \frac{\cot^2(ad + bd\log(cx^n))}{x^3} dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))**2/x**3,x)
[Out] Integral(cot(a*d + b*d*log(c*x**n))**2/x**3, x)
```

Maxima [F]

$$\int \frac{\cot^2(d(a + b\log(cx^n)))}{x^3} dx = \int \frac{\cot((b\log(cx^n) + a)d)^2}{x^3} dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="maxima")
[Out] -1/2*((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*cos(2*b*d*log(x
^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*sin(
2*b*d*log(x^n) + 2*a*d)^2 + b*d*n - 2*(b*d*n*cos(2*b*d*log(c)) + 2*sin(2*b*
d*log(c)))*cos(2*b*d*log(x^n) + 2*a*d) - 4*(2*b^2*d^2*n^2*x^2*cos(2*b*d*log
(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x^2*sin(2*b*d*log(c))*sin(
2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2*x^2 - (b^2*d^2*cos(2*b*d*log(c))^2 +
b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d
^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*sin(2*b*d*log
(x^n) + 2*a*d)^2)*integrate((cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + cos(
b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*x^3*cos(b*d*log(c))*cos
(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*x^3*sin(b*d*log(c))*sin(b*d*log(x^n) +
 a*d) + b^2*d^2*n^2*x^3 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(
c))^2)*n^2*x^3*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2
*d^2*sin(b*d*log(c))^2)*n^2*x^3*sin(b*d*log(x^n) + a*d)^2), x) + 4*(2*b^2*d
^2*n^2*x^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b^2*d^2*n^2*x^
2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - b^2*d^2*n^2*x^2 - (b^2*d^
2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*x^2*cos(2*b*d*log(
```

```
x^n) + 2*a*d)^2 - (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^
2)*n^2*x^2*sin(2*b*d*log(x^n) + 2*a*d)^2)*integrate(-(cos(b*d*log(x^n) + a*
d)*sin(b*d*log(c)) + cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^
2*x^3*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*x^3*sin(b*d*l
og(c))*sin(b*d*log(x^n) + a*d) - b^2*d^2*n^2*x^3 - (b^2*d^2*cos(b*d*log(c))
^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*x^3*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^
2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*x^3*sin(b*d*log(x^n) +
 a*d)^2), x) + 2*(b*d*n*sin(2*b*d*log(c)) - 2*cos(2*b*d*log(c)))*sin(2*b*d*
log(x^n) + 2*a*d))/(2*b*d*n*x^2*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*
d) - 2*b*d*n*x^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - (b*d*cos(2
*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^2*cos(2*b*d*log(x^n) + 2*a*d)
^2 - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*n*x^2*sin(2*b*d*lo
g(x^n) + 2*a*d)^2 - b*d*n*x^2)
```

Giac [F]

$$\int \frac{\cot^2 (d(a+b\log (cx^n)))}{x^3} \, dx = \int \frac{\cot \left((b\log (cx^n) + a)d\right)^2}{x^3} \, dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^2/x^3,x, algorithm="giac")
[Out] integrate(cot((b*log(c*x^n) + a)*d)^2/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\cot^2 (d(a+b\log (cx^n)))}{x^3} \, dx = \int \frac{\cot\left(d\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^2}{x^3} \, dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^2/x^3,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^2/x^3, x)
```

3.223 $\int \frac{\cot^3(a+b\log(cx^n))}{x} dx$

Optimal result 2267
Rubi [A] (verified) 2267
Mathematica [A] (verified) 2268
Maple [A] (verified) 2268
Fricas [A] (verification not implemented) 2269
Sympy [B] (verification not implemented) 2269
Maxima [B] (verification not implemented) 2270
Giac [F(-1)] 2271
Mupad [B] (verification not implemented) 2271

Optimal result

Integrand size = 17, antiderivative size = 44

$$\int \frac{\cot^3(a+b\log(cx^n))}{x} dx = -\frac{\cot^2(a+b\log(cx^n))}{2bn} - \frac{\log(\sin(a+b\log(cx^n)))}{bn}$$

```
[Out] -1/2*cot(a+b*ln(c*x^n))^2/b/n-ln(sin(a+b*ln(c*x^n)))/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used = {3554, 3556}

$$\int \frac{\cot^3(a+b\log(cx^n))}{x} dx = -\frac{\log(\sin(a+b\log(cx^n)))}{bn} - \frac{\cot^2(a+b\log(cx^n))}{2bn}$$

```
[In] Int[Cot[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] -1/2*Cot[a + b*Log[c*x^n]]^2/(b*n) - Log[Sin[a + b*Log[c*x^n]]]/(b*n)
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \cot^3(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\
&= -\frac{\cot^2(a+b\log(cx^n))}{2bn} - \frac{\text{Subst}\left(\int \cot(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\
&= -\frac{\cot^2(a+b\log(cx^n))}{2bn} - \frac{\log(\sin(a+b\log(cx^n)))}{bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.18 (sec) , antiderivative size = 52, normalized size of antiderivative = 1.18

$$
\int \frac{\cot^3(a+b\log(cx^n))}{x}\,dx = -\frac{\cot^2(a+b\log(cx^n)) + 2\log(\cos(a+b\log(cx^n))) + 2\log(\tan(a+b\log(cx^n)))}{2bn}
$$

```
[In] Integrate[Cot[a + b*Log[c*x^n]]^3/x,x]
[Out] -1/2*(Cot[a + b*Log[c*x^n]]^2 + 2*Log[Cos[a + b*Log[c*x^n]]] + 2*Log[Tan[a
+ b*Log[c*x^n]]])/(b*n)
```

Maple [A] (verified)

Time = 0.50 (sec) , antiderivative size = 42, normalized size of antiderivative = 0.95

method	result
derivativedivides	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^2}{2}+\frac{\ln\left(\cot(a+b\ln(c\,x^n))^2+1\right)}{2}}{nb}$
default	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^2}{2}+\frac{\ln\left(\cot(a+b\ln(c\,x^n))^2+1\right)}{2}}{nb}$
parallelrisch	$\frac{-2\ln(\tan(a+b\ln(c\,x^n)))+\ln\left(\sec(a+b\ln(c\,x^n))^2\right)-\cot(a+b\ln(c\,x^n))^2}{2bn}$
risch	$-i\ln(x)+\frac{2ia}{nb}+\frac{2i\ln(c)}{n}+\frac{2i\ln(x^n)}{n}+\frac{\pi\,\text{csgn}(ic\,x^n)^3}{n}-\frac{\pi\,\text{csgn}(ic\,x^n)^2\,\text{csgn}(ic)}{n}-\frac{\pi\,\text{csgn}(ix^n)\,\text{csgn}(ic\,x^n)^2}{n}$

```
[In] int(cot(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)
[Out] 1/n/b*(-1/2*cot(a+b*ln(c*x^n))^2+1/2*ln(cot(a+b*ln(c*x^n))^2+1))
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.59

$$\int \frac{\cot^3(a+b\log(cx^n))}{x}\,dx = -\frac{(\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)-1)\log\left(-\frac{1}{2}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+\frac{1}{2}\right)-2}{2\,(bn\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)-bn)}$$

```
[In] integrate(cot(a+b*log(c*x^n))^3/x,x, algorithm="fricas")
```

```
[Out] -1/2*((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - 1)*log(-1/2*cos(2*b*n*log(x)
+ 2*b*log(c) + 2*a) + 1/2) - 2)/(b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) -
 b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 97 vs. 2(36) = 72.

Time = 4.27 (sec) , antiderivative size = 97, normalized size of antiderivative = 2.20

$$\int \frac{\cot^3(a+b\log(cx^n))}{x}\,dx = \begin{cases} \tilde{\infty}\log(x) & \text{for } a=0 \wedge b=0 \wedge n=0 \\ \log(x)\cot^3(a) & \text{for } b=0 \\ \log(x)\cot^3(a+b\log(c)) & \text{for } n=0 \\ \tilde{\infty}\log(x) & \text{for } a=-b\log(cx^n) \\ \frac{\log(\tan^2(a+b\log(cx^n))+1)}{2bn} - \frac{\log(\tan(a+b\log(cx^n)))}{bn} - \frac{1}{2bn\tan^2(a+b\log(cx^n))} & \text{otherwise} \end{cases}$$

```
[In] integrate(cot(a+b*ln(c*x**n))**3/x,x)
```

```
[Out] Piecewise((zoo*log(x), Eq(a, 0) & Eq(b, 0) & Eq(n, 0)), (log(x)*cot(a)**3,
Eq(b, 0)), (log(x)*cot(a + b*log(c))**3, Eq(n, 0)), (zoo*log(x), Eq(a, -b*l
og(c*x**n))), (log(tan(a + b*log(c*x**n))**2 + 1)/(2*b*n) - log(tan(a + b*l
og(c*x**n)))/(b*n) - 1/(2*b*n*tan(a + b*log(c*x**n))**2), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1713 vs. 2(42) = 84.

Time = 0.26 (sec) , antiderivative size = 1713, normalized size of antiderivative = 38.93

$$\int \frac{\cot^3(a + b\log(cx^n))}{x} dx = \text{Too large to display}$$

```
[In] integrate(cot(a+b*log(c*x^n))^3/x,x, algorithm="maxima")
```

```
[Out] -1/2*(8*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 +
 8*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 - 4*((
cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*
log(x^n) + 2*a) + (cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*
b*log(c)))*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 4*cos(2*b*log
(c))*cos(2*b*log(x^n) + 2*a) + ((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos
(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*
log(x^n) + 2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n
) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2
*a)^2 - 2*(2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log
(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*
b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(4*b*log(c)))*cos(4
*b*log(x^n) + 4*a) - 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 2*(2*(cos(
2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(
x^n) + 2*a) - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*
log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a)
 + 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)*log((cos(a)^2 + sin(a)^2)
*cos(b*log(c))^2 + (cos(a)^2 + sin(a)^2)*sin(b*log(c))^2 + 2*(cos(b*log(c))
*cos(a) - sin(b*log(c))*sin(a))*cos(b*log(x^n)) + cos(b*log(x^n))^2 - 2*(co
s(a)*sin(b*log(c)) + cos(b*log(c))*sin(a))*sin(b*log(x^n)) + sin(b*log(x^n)
)^2) + ((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 +
 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + (cos
(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*
log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 - 2*(2*(cos(4*b*lo
g(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) +
 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)
))*sin(2*b*log(x^n) + 2*a) - cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 4*c
os(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 2*(2*(cos(2*b*log(c))*sin(4*b*log(
c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(cos(4*b
*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n
) + 2*a) - sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + 1)*log((cos(a)^2 + sin(a)^2)*cos(b*log(c))^2 + (cos(
a)^2 + sin(a)^2)*sin(b*log(c))^2 - 2*(cos(b*log(c))*cos(a) - sin(b*log(c))*
sin(a))*cos(b*log(x^n)) + cos(b*log(x^n))^2 + 2*(cos(a)*sin(b*log(c)) + cos
(b*log(c))*sin(a))*sin(b*log(x^n)) + sin(b*log(x^n))^2) + 4*((cos(2*b*log(c
```

```
))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*
a) - (cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*si
n(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) + 4*sin(2*b*log(c))*sin(2*b*
log(x^n) + 2*a))/((b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log
(x^n) + 4*a)^2 - 4*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 4*(b*cos(2
*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(4*
b*log(c))^2 + b*sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4*a)^2 + 4*b*n*sin(
2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*log(c))^2 + b*sin(2*b*lo
g(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 + b*n + 2*(b*n*cos(4*b*log(c)) - 2*(b*
cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(
2*b*log(x^n) + 2*a) - 2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(
c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 2
*(2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))
*n*cos(2*b*log(x^n) + 2*a) - b*n*sin(4*b*log(c)) - 2*(b*cos(4*b*log(c))*cos
(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a)
)*sin(4*b*log(x^n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^3(a + b\log(cx^n))}{x} \, dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^3/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 29.41 (sec) , antiderivative size = 106, normalized size of antiderivative = 2.41

$$\int \frac{\cot^3(a + b\log(cx^n))}{x} \, dx = \ln(x) \, 1\mathrm{i} + \frac{2}{b\,n\,\left(1 + \mathrm{e}^{a\,4\mathrm{i}}\,(c\,x^n)^{b\,4\mathrm{i}} - 2\,\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}\right)} + \frac{2}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}} - 1\right)} - \frac{\ln\left(\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}} - 1\right)}{b\,n}$$

```
[In] int(cot(a + b*log(c*x^n))^3/x,x)
[Out] log(x)*1i + 2/(b*n*(exp(a*4i)*(c*x^n)^(b*4i) - 2*exp(a*2i)*(c*x^n)^(b*2i) +
 1)) + 2/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1)) - log(exp(a*2i)*(c*x^n)^(b*2i
) - 1)/(b*n)
```

3.224 $\int \frac{\cot^4(a+b\log(cx^n))}{x} dx$

Optimal result . . . 2272
Rubi [A] (verified) . . . 2272
Mathematica [C] (verified) . . . 2273
Maple [A] (verified) . . . 2273
Fricas [B] (verification not implemented) . . . 2274
Sympy [A] (verification not implemented) . . . 2274
Maxima [B] (verification not implemented) . . . 2274
Giac [F(-1)] . . . 2276
Mupad [B] (verification not implemented) . . . 2276

Optimal result

Integrand size = 17, antiderivative size = 44

$$\int \frac{\cot^4(a+b\log(cx^n))}{x} dx = \frac{\cot(a+b\log(cx^n))}{bn} - \frac{\cot^3(a+b\log(cx^n))}{3bn} + \log(x)$$

```
[Out] cot(a+b*ln(c*x^n))/b/n-1/3*cot(a+b*ln(c*x^n))^3/b/n+ln(x)
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.118$, Rules used = {3554, 8}

$$\int \frac{\cot^4(a+b\log(cx^n))}{x} dx = -\frac{\cot^3(a+b\log(cx^n))}{3bn} + \frac{\cot(a+b\log(cx^n))}{bn} + \log(x)$$

```
[In] Int[Cot[a + b*Log[c*x^n]]^4/x,x]
```

```
[Out] Cot[a + b*Log[c*x^n]]/(b*n) - Cot[a + b*Log[c*x^n]]^3/(3*b*n) + Log[x]
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \cot^4(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\
&= -\frac{\cot^3(a+b\log(cx^n))}{3bn} - \frac{\text{Subst}\left(\int \cot^2(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\
&= \frac{\cot(a+b\log(cx^n))}{bn} - \frac{\cot^3(a+b\log(cx^n))}{3bn} + \frac{\text{Subst}\left(\int 1\,dx, x, \log(cx^n)\right)}{n}\\
&= \frac{\cot(a+b\log(cx^n))}{bn} - \frac{\cot^3(a+b\log(cx^n))}{3bn} + \log(x)
\end{aligned}
$$

Mathematica [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.08 (sec) , antiderivative size = 46, normalized size of antiderivative = 1.05

$$
\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx = -\frac{\cot^3(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(-\frac{3}{2},1,-\frac{1}{2},-\tan^2(a+b\log(cx^n))\right)}{3bn}
$$

```
[In] Integrate[Cot[a + b*Log[c*x^n]]^4/x,x]
[Out] -1/3*(Cot[a + b*Log[c*x^n]]^3*Hypergeometric2F1[-3/2, 1, -1/2, -Tan[a + b*L
og[c*x^n]]^2])/(b*n)
```

Maple [A] (verified)

Time = 0.74 (sec) , antiderivative size = 44, normalized size of antiderivative = 1.00

method	result
parallelrisch	$\frac{-\cot(a+b\ln(c\,x^n))^3+3\ln(x)bn+3\cot(a+b\ln(c\,x^n))}{3bn}$
derivativedivides	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^3}{3}+\cot(a+b\ln(c\,x^n))-\frac{\pi}{2}+\operatorname{arccot}(\cot(a+b\ln(c\,x^n)))}{nb}$
default	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^3}{3}+\cot(a+b\ln(c\,x^n))-\frac{\pi}{2}+\operatorname{arccot}(\cot(a+b\ln(c\,x^n)))}{nb}$
risch	$\ln(x)+\frac{4i\left(3(x^n)^{4ib}c^{4ib}\mathrm{e}^{2b\pi\,\mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-2b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}\mathrm{e}^{-2b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{2b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x}\right.}{3bn\left((x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\,\mathrm{cs}}\right.}$

```
[In] int(cot(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)
[Out] 1/3*(-cot(a+b*ln(c*x^n))^3+3*ln(x)*b*n+3*cot(a+b*ln(c*x^n)))/b/n
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 132 vs. 2(42) = 84.

Time = 0.25 (sec) , antiderivative size = 132, normalized size of antiderivative = 3.00

$$\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx = \frac{4\cos(2bn\log(x)+2b\log(c)+2a)^2+3(bn\cos(2bn\log(x)+2b\log(c)+2a)\log(x)-bn\log(x))\sin(2}{3(bn\cos(2bn\log(x)+2b\log(c)+2a)-bn)\sin(2bn\log}$$

[In] integrate(cot(a+b*log(c*x^n))^4/x,x, algorithm="fricas")

[Out] 1/3*(4*cos(2*b*n*log(x) + 2*b*log(c) + 2*a)^2 + 3*(b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a)*log(x) - b*n*log(x))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a) + 2*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - 2)/((b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - b*n)*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))

Sympy [A] (verification not implemented)

Time = 1.39 (sec) , antiderivative size = 65, normalized size of antiderivative = 1.48

$$\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx = \begin{cases} \log(x)\cot^4(a) & \text{for } b=0 \wedge (b=0 \vee n=0) \\ \log(x)\cot^4(a+b\log(c)) & \text{for } n=0 \\ \frac{\log(cx^n)}{n} - \frac{\cot^3(a+b\log(cx^n))}{3bn} + \frac{\cot(a+b\log(cx^n))}{bn} & \text{otherwise} \end{cases}$$

[In] integrate(cot(a+b*ln(c*x**n))**4/x,x)

[Out] Piecewise((log(x)*cot(a)**4, Eq(b, 0) & (Eq(b, 0) | Eq(n, 0))), (log(x)*cot(a + b*log(c))**4, Eq(n, 0)), (log(c*x**n)/n - cot(a + b*log(c*x**n))**3/(3*b*n) + cot(a + b*log(c*x**n))/(b*n), True))

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 2172 vs. 2(42) = 84.

Time = 0.28 (sec) , antiderivative size = 2172, normalized size of antiderivative = 49.36

$$\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

[In] integrate(cot(a+b*log(c*x^n))^4/x,x, algorithm="maxima")

```
[Out] 1/3*(3*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a
)^2*log(x) + 27*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x
^n) + 4*a)^2*log(x) + 27*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(
2*b*log(x^n) + 2*a)^2*log(x) + 3*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2
)*n*log(x)*sin(6*b*log(x^n) + 6*a)^2 + 27*(b*cos(4*b*log(c))^2 + b*sin(4*b*
log(c))^2)*n*log(x)*sin(4*b*log(x^n) + 4*a)^2 + 27*(b*cos(2*b*log(c))^2 + b
*sin(2*b*log(c))^2)*n*log(x)*sin(2*b*log(x^n) + 2*a)^2 + 3*b*n*log(x) - 2*(
3*b*n*cos(6*b*log(c))*log(x) + 3*(3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*
sin(6*b*log(c))*sin(4*b*log(c)))*n*log(x) - 2*cos(4*b*log(c))*sin(6*b*log(c
)) + 2*cos(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 3*(3*(b*c
os(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*log(x
) - 2*cos(2*b*log(c))*sin(6*b*log(c)) + 2*cos(6*b*log(c))*sin(2*b*log(c)))*
cos(2*b*log(x^n) + 2*a) + 3*(3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6
*b*log(c))*sin(4*b*log(c)))*n*log(x) + 2*cos(6*b*log(c))*cos(4*b*log(c)) +
2*sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 3*(3*(b*cos(2*
b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*log(x) + 2
*cos(6*b*log(c))*cos(2*b*log(c)) + 2*sin(6*b*log(c))*sin(2*b*log(c)))*sin(2
*b*log(x^n) + 2*a) - 4*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + 6*(3*b*n*
cos(4*b*log(c))*log(x) - 9*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*l
og(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a)*log(x) - 9*(b*cos(2*b*log
(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*log(x)*sin(2*b*
log(x^n) + 2*a) - 2*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 6*(3*b*n*cos
(2*b*log(c))*log(x) - 2*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(3*b*n
*log(x)*sin(6*b*log(c)) + 3*(3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6
*b*log(c))*sin(4*b*log(c)))*n*log(x) + 2*cos(6*b*log(c))*cos(4*b*log(c)) +
2*sin(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 3*(3*(b*cos(2*
b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*log(x) + 2
*cos(6*b*log(c))*cos(2*b*log(c)) + 2*sin(6*b*log(c))*sin(2*b*log(c)))*cos(2
*b*log(x^n) + 2*a) - 3*(3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*lo
g(c))*sin(4*b*log(c)))*n*log(x) - 2*cos(4*b*log(c))*sin(6*b*log(c)) + 2*cos
(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 3*(3*(b*cos(6*b*log
(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*log(x) - 2*cos(
2*b*log(c))*sin(6*b*log(c)) + 2*cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*lo
g(x^n) + 2*a) + 4*cos(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 6*(9*(b*cos(2*
b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*lo
g(x^n) + 2*a)*log(x) - 3*b*n*log(x)*sin(4*b*log(c)) - 9*(b*cos(4*b*log(c))*
cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*log(x)*sin(2*b*log(x
^n) + 2*a) - 2*cos(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 6*(3*b*n*log(x)*s
in(2*b*log(c)) + 2*cos(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))/((b*cos(6*b*lo
g(c))^2 + b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*l
og(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 - 6*b*n*cos(2*b
*log(c))*cos(2*b*log(x^n) + 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c
))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(6*b*log(c))^2 + b*sin(6*b*log(c)
)^2)*n*sin(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c
))^2)*n*sin(4*b*log(x^n) + 4*a)^2 + 6*b*n*sin(2*b*log(c))*sin(2*b*log(x^n)
```

```
+ 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) +
 2*a)^2 + b*n - 2*(b*n*cos(6*b*log(c)) + 3*(b*cos(6*b*log(c))*cos(4*b*log(c
)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) - 3*(b*co
s(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*
b*log(x^n) + 2*a) + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c)
)*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 3*(b*cos(2*b*log(c))*sin(6*b
*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*co
s(6*b*log(x^n) + 6*a) + 6*(b*n*cos(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2
*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) -
 3*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*
n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 2*(3*(b*cos(4*b*log(c)
)*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) +
 4*a) - 3*(b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*lo
g(c)))*n*cos(2*b*log(x^n) + 2*a) + b*n*sin(6*b*log(c)) - 3*(b*cos(6*b*log(c
))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n)
+ 4*a) + 3*(b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*l
og(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) + 6*(3*(b*cos(2*
b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*lo
g(x^n) + 2*a) - b*n*sin(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2*b*log(c))
+ b*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log
(x^n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx=\text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^4/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 35.99 (sec) , antiderivative size = 182, normalized size of antiderivative = 4.14

$$\int \frac{\cot^4(a+b\log(cx^n))}{x}\,dx=\ln(x)+\frac{\frac{4\mathrm{i}}{3\,b\,n}+\frac{\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}\,4\mathrm{i}}{3\,b\,n}}{3\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}-3\,\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}+\mathrm{e}^{a\,6\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,6\mathrm{i}}-1}+\frac{4\mathrm{i}}{3\,b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}-1\right)}+\frac{\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}\,4\mathrm{i}}{3\,b\,n\,\left(1+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,4\mathrm{i}}-2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}\right)}$$

```
[In] int(cot(a + b*log(c*x^n))^4/x,x)
```

```
[Out] log(x) + (4i/(3*b*n) + (exp(a*4i)*(c*x^n)^(b*4i)*4i)/(3*b*n))/(3*exp(a*2i)*
(c*x^n)^(b*2i) - 3*exp(a*4i)*(c*x^n)^(b*4i) + exp(a*6i)*(c*x^n)^(b*6i) - 1)
 + 4i/(3*b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1)) + (exp(a*2i)*(c*x^n)^(b*2i)*4i
)/(3*b*n*(exp(a*4i)*(c*x^n)^(b*4i) - 2*exp(a*2i)*(c*x^n)^(b*2i) + 1))
```

3.225 $\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx$

Optimal result 2278
Rubi [A] (verified) 2278
Mathematica [A] (verified) 2279
Maple [A] (verified) 2279
Fricas [B] (verification not implemented) 2280
Sympy [B] (verification not implemented) 2280
Maxima [B] (verification not implemented) 2281
Giac [F(-1)] 2285
Mupad [B] (verification not implemented) 2286

Optimal result

Integrand size = 17, antiderivative size = 66

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx = \frac{\cot^2(a+b\log(cx^n))}{2bn} - \frac{\cot^4(a+b\log(cx^n))}{4bn} + \frac{\log(\sin(a+b\log(cx^n)))}{bn}$$

```
[Out] 1/2*cot(a+b*ln(c*x^n))^2/b/n-1/4*cot(a+b*ln(c*x^n))^4/b/n+ln(sin(a+b*ln(c*x
^n)))/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 66, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3554, 3556}

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx = \frac{\log(\sin(a+b\log(cx^n)))}{bn} - \frac{\cot^4(a+b\log(cx^n))}{4bn} + \frac{\cot^2(a+b\log(cx^n))}{2bn}$$

```
[In] Int[Cot[a + b*Log[c*x^n]]^5/x,x]
```

```
[Out] Cot[a + b*Log[c*x^n]]^2/(2*b*n) - Cot[a + b*Log[c*x^n]]^4/(4*b*n) + Log[Sin
[a + b*Log[c*x^n]]]/(b*n)
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
```

```
x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3556

```
Int[tan[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-Log[RemoveContent[Cos[c + d
*x], x]]/d, x] /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \cot^5(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= -\frac{\cot^4\left(a+b\log\left(cx^n\right)\right)}{4bn} - \frac{\text{Subst}\left(\int \cot^3(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{\cot^2\left(a+b\log\left(cx^n\right)\right)}{2bn} - \frac{\cot^4\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{\text{Subst}\left(\int \cot(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{\cot^2\left(a+b\log\left(cx^n\right)\right)}{2bn} - \frac{\cot^4\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{\log\left(\sin\left(a+b\log\left(cx^n\right)\right)\right)}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.29

$$\int \frac{\cot^5\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = \frac{\cot^2\left(a+b\log\left(cx^n\right)\right)}{2bn} - \frac{\cot^4\left(a+b\log\left(cx^n\right)\right)}{4bn} + \frac{\log\left(\cos\left(a+b\log\left(cx^n\right)\right)\right)}{bn} + \frac{\log\left(\tan\left(a+b\log\left(cx^n\right)\right)\right)}{bn}$$

```
[In] Integrate[Cot[a + b*Log[c*x^n]]^5/x,x]
[Out] Cot[a + b*Log[c*x^n]]^2/(2*b*n) - Cot[a + b*Log[c*x^n]]^4/(4*b*n) + Log[Cos
[a + b*Log[c*x^n]]]/(b*n) + Log[Tan[a + b*Log[c*x^n]]]/(b*n)
```

Maple [A] (verified)

Time = 1.40 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.86

method	result
derivativedivides	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^4}{4}+\frac{\cot(a+b\ln(c\,x^n))^2}{2}-\frac{\ln\left(\cot(a+b\ln(c\,x^n))^2+1\right)}{2}}{nb}$
default	$\frac{-\frac{\cot(a+b\ln(c\,x^n))^4}{4}+\frac{\cot(a+b\ln(c\,x^n))^2}{2}-\frac{\ln\left(\cot(a+b\ln(c\,x^n))^2+1\right)}{2}}{nb}$
parallelrisch	$\frac{-\cot(a+b\ln(c\,x^n))^4+4\ln(\tan(a+b\ln(c\,x^n)))-2\ln\left(\sec(a+b\ln(c\,x^n))^2\right)+2\cot(a+b\ln(c\,x^n))^2}{4bn}$
risch	$i\ln(x)-\frac{2ia}{nb}-\frac{2i\ln(c)}{n}-\frac{2i\ln(x^n)}{n}-\frac{\pi\,\mathrm{csgn}(ic\,x^n)^3}{n}+\frac{\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}{n}+\frac{\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{n}-$

```
[In] int(cot(a+b*ln(c*x^n))^5/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(-1/4*cot(a+b*ln(c*x^n))^4+1/2*cot(a+b*ln(c*x^n))^2-1/2*ln(cot(a+b*ln
(c*x^n))^2+1))
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 129 vs. $2(62) = 124$.

Time = 0.25 (sec) , antiderivative size = 129, normalized size of antiderivative = 1.95

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx = \frac{\left(\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)^2-2\,\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1\right)\log\left(-\frac{1}{2}\,\cos(2\,bn\log(x)\right.}{2\left(bn\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)^2-2\,bn\cos(2\,bn\log(x)\right.}$$

```
[In] integrate(cot(a+b*log(c*x^n))^5/x,x, algorithm="fricas")
```

```
[Out] 1/2*((cos(2*b*n*log(x) + 2*b*log(c) + 2*a)^2 - 2*cos(2*b*n*log(x) + 2*b*log
(c) + 2*a) + 1)*log(-1/2*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1/2) - 4*co
s(2*b*n*log(x) + 2*b*log(c) + 2*a) + 2)/(b*n*cos(2*b*n*log(x) + 2*b*log(c)
+ 2*a)^2 - 2*b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n)
```

Sympy [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 117 vs. $2(53) = 106$.

Time = 20.05 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.77

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx$$
$$=\begin{cases} \tilde{\infty}\log(x) & \text{for } a=0 \wedge b= \\ \log(x)\cot^5(a) & \text{for } b=0 \\ \log(x)\cot^5(a+b\log(c)) & \text{for } n=0 \\ \tilde{\infty}\log(x) & \text{for } a=-b\log \\ -\frac{\log(\tan^2(a+b\log(cx^n))+1)}{2bn}+\frac{\log(\tan(a+b\log(cx^n)))}{bn}+\frac{1}{2bn\tan^2(a+b\log(cx^n))}-\frac{1}{4bn\tan^4(a+b\log(cx^n))} & \text{otherwise} \end{cases}$$

```
[In] integrate(cot(a+b*ln(c*x**n))**5/x,x)
```

```
[Out] Piecewise((zoo*log(x), Eq(a, 0) & Eq(b, 0) & Eq(n, 0)), (log(x)*cot(a)**5,
Eq(b, 0)), (log(x)*cot(a + b*log(c))**5, Eq(n, 0)), (zoo*log(x), Eq(a, -b*l
og(c*x**n))), (-log(tan(a + b*log(c*x**n))**2 + 1)/(2*b*n) + log(tan(a + b*
log(c*x**n)))/(b*n) + 1/(2*b*n*tan(a + b*log(c*x**n))**2) - 1/(4*b*n*tan(a
+ b*log(c*x**n))**4), True))
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 5998 vs. 2(62) = 124.

Time = 0.36 (sec) , antiderivative size = 5998, normalized size of antiderivative = 90.88

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(cot(a+b*log(c*x^n))^5/x,x, algorithm="maxima")
```

```
[Out] 1/2*(32*(cos(6*b*log(c))^2 + sin(6*b*log(c))^2)*cos(6*b*log(x^n) + 6*a)^2 +
 48*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 + 32*
(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + 32*(cos
(6*b*log(c))^2 + sin(6*b*log(c))^2)*sin(6*b*log(x^n) + 6*a)^2 + 48*(cos(4*b
*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2 + 32*(cos(2*b*log
(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 - 8*((cos(8*b*log(c))
*cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a)
 - (cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*cos(
4*b*log(x^n) + 4*a) + (cos(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*si
n(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + (cos(6*b*log(c))*sin(8*b*log(c)) -
 cos(8*b*log(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - (cos(4*b*log(c)
)*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a
) + (cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*sin
(2*b*log(x^n) + 2*a))*cos(8*b*log(x^n) + 8*a) - 8*(10*(cos(6*b*log(c))*cos(
```

4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 8*
(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*cos(2*b
*log(x^n) + 2*a) + 10*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*si
n(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 8*(cos(2*b*log(c))*sin(6*b*log(c))
 - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(6*b*log(c
)))*cos(6*b*log(x^n) + 6*a) - 8*(10*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(
4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 10*(cos(2*b*log(c))*
sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a)
- cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 8*cos(2*b*log(c))*cos(2*b*log(
x^n) + 2*a) + ((cos(8*b*log(c))^2 + sin(8*b*log(c))^2)*cos(8*b*log(x^n) + 8
a)^2 + 16(cos(6*b*log(c))^2 + sin(6*b*log(c))^2)*cos(6*b*log(x^n) + 6*a)^
2 + 36*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 +
16*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + (cos
(8*b*log(c))^2 + sin(8*b*log(c))^2)*sin(8*b*log(x^n) + 8*a)^2 + 16*(cos(6*b
*log(c))^2 + sin(6*b*log(c))^2)*sin(6*b*log(x^n) + 6*a)^2 + 36*(cos(4*b*log
(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2 + 16*(cos(2*b*log(c))
^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 - 2*(4*(cos(8*b*log(c))*c
os(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) -
 6*(cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*cos(
4*b*log(x^n) + 4*a) + 4*(cos(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*
sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 4*(cos(6*b*log(c))*sin(8*b*log(c
)) - cos(8*b*log(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 6*(cos(4*b*
log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n)
 + 4*a) + 4*(cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(
c)))*sin(2*b*log(x^n) + 2*a) - cos(8*b*log(c)))*cos(8*b*log(x^n) + 8*a) - 8
(6(cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*cos
(4*b*log(x^n) + 4*a) - 4*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))
*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 6*(cos(4*b*log(c))*sin(6*b*log(
c)) - cos(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 4*(cos(2*b
*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n
) + 2*a) + cos(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) - 12*(4*(cos(4*b*log(c)
)*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a
) + 4*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*s
in(2*b*log(x^n) + 2*a) - cos(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 8*cos(2
*b*log(c))*cos(2*b*log(x^n) + 2*a) + 2*(4*(cos(6*b*log(c))*sin(8*b*log(c))
- cos(8*b*log(c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) - 6*(cos(4*b*log
(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) +
4*a) + 4*(cos(2*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c))
)*cos(2*b*log(x^n) + 2*a) - 4*(cos(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*lo
g(c))*sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 6*(cos(8*b*log(c))*cos(4*b
*log(c)) + sin(8*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 4*(co
s(8*b*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*lo
g(x^n) + 2*a) - sin(8*b*log(c)))*sin(8*b*log(x^n) + 8*a) + 8*(6*(cos(4*b*lo
g(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) +
 4*a) - 4*(cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)

```
))*cos(2*b*log(x^n) + 2*a) - 6*(cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*l
og(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*(cos(6*b*log(c))*cos(2*
b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(
6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 12*(4*(cos(2*b*log(c))*sin(4*b*log(c
)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 4*(cos(4*b*
log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n)
 + 2*a) - sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 8*sin(2*b*log(c))*sin(
2*b*log(x^n) + 2*a) + 1)*log((cos(a)^2 + sin(a)^2)*cos(b*log(c))^2 + (cos(a
)^2 + sin(a)^2)*sin(b*log(c))^2 + 2*(cos(b*log(c))*cos(a) - sin(b*log(c))*s
in(a))*cos(b*log(x^n)) + cos(b*log(x^n))^2 - 2*(cos(a)*sin(b*log(c)) + cos(
b*log(c))*sin(a))*sin(b*log(x^n)) + sin(b*log(x^n))^2) + ((cos(8*b*log(c))^
2 + sin(8*b*log(c))^2)*cos(8*b*log(x^n) + 8*a)^2 + 16*(cos(6*b*log(c))^2 +
sin(6*b*log(c))^2)*cos(6*b*log(x^n) + 6*a)^2 + 36*(cos(4*b*log(c))^2 + sin(
4*b*log(c))^2)*cos(4*b*log(x^n) + 4*a)^2 + 16*(cos(2*b*log(c))^2 + sin(2*b*
log(c))^2)*cos(2*b*log(x^n) + 2*a)^2 + (cos(8*b*log(c))^2 + sin(8*b*log(c))
^2)*sin(8*b*log(x^n) + 8*a)^2 + 16*(cos(6*b*log(c))^2 + sin(6*b*log(c))^2)*
sin(6*b*log(x^n) + 6*a)^2 + 36*(cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(
4*b*log(x^n) + 4*a)^2 + 16*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*
log(x^n) + 2*a)^2 - 2*(4*(cos(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*log(c))
*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) - 6*(cos(8*b*log(c))*cos(4*b*log(
c)) + sin(8*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 4*(cos(8*b
*log(c))*cos(2*b*log(c)) + sin(8*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n
) + 2*a) + 4*(cos(6*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(6*b*log
(c)))*sin(6*b*log(x^n) + 6*a) - 6*(cos(4*b*log(c))*sin(8*b*log(c)) - cos(8*
b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*(cos(2*b*log(c))*sin
(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - c
os(8*b*log(c)))*cos(8*b*log(x^n) + 8*a) - 8*(6*(cos(6*b*log(c))*cos(4*b*log
(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 4*(cos(6*
b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^
n) + 2*a) + 6*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*lo
g(c)))*sin(4*b*log(x^n) + 4*a) - 4*(cos(2*b*log(c))*sin(6*b*log(c)) - cos(6
*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(6*b*log(c)))*cos(
6*b*log(x^n) + 6*a) - 12*(4*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(
c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 4*(cos(2*b*log(c))*sin(4*b*l
og(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(4*b
*log(c)))*cos(4*b*log(x^n) + 4*a) - 8*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*
a) + 2*(4*(cos(6*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(6*b*log(c)
))*cos(6*b*log(x^n) + 6*a) - 6*(cos(4*b*log(c))*sin(8*b*log(c)) - cos(8*b*l
og(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 4*(cos(2*b*log(c))*sin(8*
b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 4*(c
os(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)))*sin(6*b*l
og(x^n) + 6*a) + 6*(cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log(c))*sin(4
*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 4*(cos(8*b*log(c))*cos(2*b*log(c)) +
sin(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(8*b*log(c)))
*sin(8*b*log(x^n) + 8*a) + 8*(6*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*
```

```
log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 4*(cos(2*b*log(c))*sin(6
*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 6*(
cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*
log(x^n) + 4*a) + 4*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(
2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(6*b*log(c)))*sin(6*b*log(x^n) +
6*a) + 12*(4*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log
(c)))*cos(2*b*log(x^n) + 2*a) - 4*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*
b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4
*b*log(x^n) + 4*a) + 8*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)*log((co
s(a)^2 + sin(a)^2)*cos(b*log(c))^2 + (cos(a)^2 + sin(a)^2)*sin(b*log(c))^2
- 2*(cos(b*log(c))*cos(a) - sin(b*log(c))*sin(a))*cos(b*log(x^n)) + cos(b*l
og(x^n))^2 + 2*(cos(a)*sin(b*log(c)) + cos(b*log(c))*sin(a))*sin(b*log(x^n)
) + sin(b*log(x^n))^2) + 8*((cos(6*b*log(c))*sin(8*b*log(c)) - cos(8*b*log(
c))*sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) - (cos(4*b*log(c))*sin(8*b*log
(c)) - cos(8*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + (cos(2*b*
log(c))*sin(8*b*log(c)) - cos(8*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n)
 + 2*a) - (cos(8*b*log(c))*cos(6*b*log(c)) + sin(8*b*log(c))*sin(6*b*log(c)
))*sin(6*b*log(x^n) + 6*a) + (cos(8*b*log(c))*cos(4*b*log(c)) + sin(8*b*log
(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - (cos(8*b*log(c))*cos(2*b*lo
g(c)) + sin(8*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*sin(8*b*l
og(x^n) + 8*a) + 8*(10*(cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*s
in(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) - 8*(cos(2*b*log(c))*sin(6*b*log(c)
) - cos(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 10*(cos(6*b*
log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n)
 + 4*a) + 8*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(
c)))*sin(2*b*log(x^n) + 2*a) + sin(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 8
*(10*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*co
s(2*b*log(x^n) + 2*a) - 10*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c
))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4*b*log(
x^n) + 4*a) + 8*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/((b*cos(8*b*log(c)
)^2 + b*sin(8*b*log(c))^2)*n*cos(8*b*log(x^n) + 8*a)^2 + 16*(b*cos(6*b*log(
c))^2 + b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 36*(b*cos(4*b*lo
g(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 - 8*b*n*cos(2*b*
log(c))*cos(2*b*log(x^n) + 2*a) + 16*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c
))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(8*b*log(c))^2 + b*sin(8*b*log(c)
)^2)*n*sin(8*b*log(x^n) + 8*a)^2 + 16*(b*cos(6*b*log(c))^2 + b*sin(6*b*log(
c))^2)*n*sin(6*b*log(x^n) + 6*a)^2 + 36*(b*cos(4*b*log(c))^2 + b*sin(4*b*lo
g(c))^2)*n*sin(4*b*log(x^n) + 4*a)^2 + 8*b*n*sin(2*b*log(c))*sin(2*b*log(x^
n) + 2*a) + 16*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^
n) + 2*a)^2 + b*n + 2*(b*n*cos(8*b*log(c)) - 4*(b*cos(8*b*log(c))*cos(6*b*l
og(c)) + b*sin(8*b*log(c))*sin(6*b*log(c)))*n*cos(6*b*log(x^n) + 6*a) + 6*(
b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*b*log(c))*sin(4*b*log(c)))*n*co
s(4*b*log(x^n) + 4*a) - 4*(b*cos(8*b*log(c))*cos(2*b*log(c)) + b*sin(8*b*lo
g(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - 4*(b*cos(6*b*log(c))*sin
(8*b*log(c)) - b*cos(8*b*log(c))*sin(6*b*log(c)))*n*sin(6*b*log(x^n) + 6*a)
```

```
+ 6*(b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c))
)*n*sin(4*b*log(x^n) + 4*a) - 4*(b*cos(2*b*log(c))*sin(8*b*log(c)) - b*cos(
8*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(8*b*log(x^n) +
8*a) - 8*(b*n*cos(6*b*log(c)) + 6*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*si
n(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) - 4*(b*cos(6*b*log
(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n
) + 2*a) + 6*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b
*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 4*(b*cos(2*b*log(c))*sin(6*b*log(c))
- b*cos(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(6*b*log
(x^n) + 6*a) + 12*(b*n*cos(4*b*log(c)) - 4*(b*cos(4*b*log(c))*cos(2*b*log(c
)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - 4*(b*co
s(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*
b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 2*(4*(b*cos(6*b*log(c))*sin(8*
b*log(c)) - b*cos(8*b*log(c))*sin(6*b*log(c)))*n*cos(6*b*log(x^n) + 6*a) -
6*(b*cos(4*b*log(c))*sin(8*b*log(c)) - b*cos(8*b*log(c))*sin(4*b*log(c)))*n
*cos(4*b*log(x^n) + 4*a) + 4*(b*cos(2*b*log(c))*sin(8*b*log(c)) - b*cos(8*b
*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - b*n*sin(8*b*log(c)) -
 4*(b*cos(8*b*log(c))*cos(6*b*log(c)) + b*sin(8*b*log(c))*sin(6*b*log(c)))*
n*sin(6*b*log(x^n) + 6*a) + 6*(b*cos(8*b*log(c))*cos(4*b*log(c)) + b*sin(8*
b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 4*(b*cos(8*b*log(c))
*cos(2*b*log(c)) + b*sin(8*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) +
2*a))*sin(8*b*log(x^n) + 8*a) + 8*(6*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b
*cos(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) - 4*(b*cos(2*b*
log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(
x^n) + 2*a) + b*n*sin(6*b*log(c)) - 6*(b*cos(6*b*log(c))*cos(4*b*log(c)) +
b*sin(6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) + 4*(b*cos(6*b
*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log
(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) + 12*(4*(b*cos(2*b*log(c))*sin(4*b*lo
g(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - b*n*
sin(4*b*log(c)) - 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*
sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^5(a + b\log(cx^n))}{x} \, dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^5/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 31.84 (sec) , antiderivative size = 246, normalized size of antiderivative = 3.73

$$\int \frac{\cot^5(a+b\log(cx^n))}{x}\,dx$$
$$= -\ln(x)\,1\mathrm{i} - \frac{8}{b\,n\,\left(1+\mathrm{e}^{a\,4\mathrm{i}}\,{(c\,x^n)}^{b\,4\mathrm{i}}-2\,\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}}\right)} - \frac{4}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}}-1\right)}$$
$$- \frac{4}{b\,n\,\left(1+6\,\mathrm{e}^{a\,4\mathrm{i}}\,{(c\,x^n)}^{b\,4\mathrm{i}}-4\,\mathrm{e}^{a\,6\mathrm{i}}\,{(c\,x^n)}^{b\,6\mathrm{i}}+\mathrm{e}^{a\,8\mathrm{i}}\,{(c\,x^n)}^{b\,8\mathrm{i}}-4\,\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}}\right)}$$
$$+ \frac{\ln\left(\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}}-1\right)}{b\,n} - \frac{8}{b\,n\,\left(3\,\mathrm{e}^{a\,2\mathrm{i}}\,{(c\,x^n)}^{b\,2\mathrm{i}}-3\,\mathrm{e}^{a\,4\mathrm{i}}\,{(c\,x^n)}^{b\,4\mathrm{i}}+\mathrm{e}^{a\,6\mathrm{i}}\,{(c\,x^n)}^{b\,6\mathrm{i}}-1\right)}$$

```
[In] int(cot(a + b*log(c*x^n))^5/x,x)
```

```
[Out] log(exp(a*2i)*(c*x^n)^(b*2i) - 1)/(b*n) - 8/(b*n*(exp(a*4i)*(c*x^n)^(b*4i)
- 2*exp(a*2i)*(c*x^n)^(b*2i) + 1)) - 4/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1))
 - 4/(b*n*(6*exp(a*4i)*(c*x^n)^(b*4i) - 4*exp(a*2i)*(c*x^n)^(b*2i) - 4*exp(
a*6i)*(c*x^n)^(b*6i) + exp(a*8i)*(c*x^n)^(b*8i) + 1)) - log(x)*1i - 8/(b*n*
(3*exp(a*2i)*(c*x^n)^(b*2i) - 3*exp(a*4i)*(c*x^n)^(b*4i) + exp(a*6i)*(c*x^n
)^(b*6i) - 1))
```

3.226 $\int (ex)^m \cot(d(a+b\log(cx^n)))\,dx$

Optimal result 2287
Rubi [A] (verified) 2287
Mathematica [A] (verified) 2289
Maple [F] 2289
Fricas [F] 2289
Sympy [F] 2289
Maxima [F] 2290
Giac [F(-1)] 2290
Mupad [F(-1)] 2290

Optimal result

Integrand size = 19, antiderivative size = 100

$$\int (ex)^m \cot(d(a+b\log(cx^n)))\,dx = \frac{i(ex)^{1+m}}{e(1+m)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(1+m)}$$

```
[Out] I*(e*x)^(1+m)/e/(1+m)-2*I*(e*x)^(1+m)*hypergeom([1, -1/2*I*(1+m)/b/d/n],[1-
1/2*I*(1+m)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/e/(1+m)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 4, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.211, Rules used = {4594, 4592, 470, 371}

$$\int (ex)^m \cot(d(a+b\log(cx^n)))\,dx = \frac{i(ex)^{m+1}}{e(m+1)} - \frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,-\frac{i(m+1)}{2bdn},1-\frac{i(m+1)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(m+1)}$$

```
[In] Int[(e*x)^m*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (I*(e*x)^(1 + m))/(e*(1 + m)) - ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1, (
(-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I)*a*d)*(c*x^
n)^((2*I)*b*d)])/(e*(1 + m))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cot(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$=\frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1+m}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en}$$

$$=\frac{i(ex)^{1+m}}{e(1+m)}-\frac{\left(2i(ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1+m}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en}$$

$$=\frac{i(ex)^{1+m}}{e(1+m)}-\frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}\left(cx^n\right)^{2ibd}\right)}{e(1+m)}$$

Mathematica [A] (verified)

Time = 10.30 (sec) , antiderivative size = 182, normalized size of antiderivative = 1.82

$$\int (ex)^m \cot (d(a+b\log (cx^n)))\, dx = -\frac{ix(ex)^m\left(\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2id(a+b\log(cx^n))}\right)+\frac{e^{2iad}(1+m)(cx^n)^{2ibd}\,\text{Hypergeometric2F1}\ldots}{\ldots}\right)}{1+m}$$

```
[In] Integrate[(e*x)^m*Cot[d*(a + b*Log[c*x^n])],x]
```

```
[Out] ((-I)*x*(e*x)^m*(Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2
)*(1 + m))/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + (E^((2*I)*a*d)*(1 + m
)*(c*x^n)^((2*I)*b*d)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*I)*b*d*n))
/(b*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), E^((2*I)*a*d)*(c*x^n)^(
(2*I)*b*d)])/(1 + m + (2*I)*b*d*n)))/(1 + m)
```

Maple [F]

$$\int (ex)^m \cot (d(a+b\ln (c\,x^n)))\,dx$$

```
[In] int((e*x)^m*cot(d*(a+b*ln(c*x^n))),x)
```

```
[Out] int((e*x)^m*cot(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int (ex)^m \cot (d(a+b\log (cx^n)))\, dx = \int (ex)^m \cot ((b\log (cx^n)+a)d)\, dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n))),x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*cot(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int (ex)^m \cot (d(a+b\log (cx^n)))\, dx = \int (ex)^m \cot (ad+bd\log (cx^n))\,dx$$

```
[In] integrate((e*x)**m*cot(d*(a+b*ln(c*x**n))),x)
```

```
[Out] Integral((e*x)**m*cot(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int (ex)^m \cot (d(a + b \log (cx^n))) \, dx = \int (ex)^m \cot ((b \log (cx^n) + a)d) \, dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate((e*x)^m*cot((b*log(c*x^n) + a)*d), x)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \cot (d(a + b \log (cx^n))) \, dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot (d(a + b \log (cx^n))) \, dx = \int \cot(d \, (a + b \, \ln (c \, x^n))) \, (e \, x)^m \, dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))*(e*x)^m,x)
[Out] int(cot(d*(a + b*log(c*x^n)))*(e*x)^m, x)
```

3.227 $\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx$

Optimal result . . . 2291
Rubi [A] (verified) . . . 2291
Mathematica [B] (verified) . . . 2293
Maple [F] . . . 2294
Fricas [F] . . . 2294
Sympy [F] . . . 2294
Maxima [F] . . . 2295
Giac [F(-1)] . . . 2296
Mupad [F(-1)] . . . 2296

Optimal result

Integrand size = 21, antiderivative size = 195

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bden}$$

```
[Out] (I*(1+m)-b*d*n)*(e*x)^(1+m)/b/d/e/(1+m)/n+I*(e*x)^(1+m)*(1+exp(2*I*a*d)*(c*
x^n)^(2*I*b*d))/b/d/e/n/(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))-2*I*(e*x)^(1+m)*
hypergeom([1, -1/2*I*(1+m)/b/d/n],[1-1/2*I*(1+m)/b/d/n],exp(2*I*a*d)*(c*x^n
)^(2*I*b*d))/b/d/e/n
```

Rubi [A] (verified)

Time = 0.23 (sec) , antiderivative size = 195, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.238, Rules used = {4594, 4592, 516, 470, 371}

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = -\frac{2i(ex)^{m+1}\,\text{Hypergeometric2F1}\left(1,-\frac{i(m+1)}{2bdn},1-\frac{i(m+1)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bden} + \frac{i(ex)^{m+1}\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{(ex)^{m+1}(-bdn+i(m+1))}{bde(m+1)n}$$

```
[In] Int[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] ((I*(1 + m) - b*d*n)*(e*x)^(1 + m))/(b*d*e*(1 + m)*n) + (I*(e*x)^(1 + m)*(1
 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(b*d*e*n*(1 - E^((2*I)*a*d)*(c*x^n)^
((2*I)*b*d))) - ((2*I)*(e*x)^(1 + m)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m)
)/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])
/(b*d*e*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cot^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^2}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{en}$$

$$= \frac{i(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(ie^{-2iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(\frac{2e^{2iad}(1+m-ibdn)}{n}+\frac{2e^{4iad}(1+m+ibdn)x^{2ibd}}{n}\right)}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{2bden}$$

$$= \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(2i(1+m)(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{bden^2}$$

$$= \frac{(i(1+m)-bdn)(ex)^{1+m}}{bde(1+m)n} + \frac{i(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{2i(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{bden}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 547 vs. 2(195) = 390.

Time = 14.08 (sec) , antiderivative size = 547, normalized size of antiderivative = 2.81

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = -\frac{x(ex)^m}{1+m} + \frac{x(ex)^m\csc(d(a+b(-n\log(x)+\log(cx^n))))\csc(bdn\log(x)+d(a+b(-n\log(x)+\log(cx^n))))\sin(bdn}{bdn} - \frac{(1+m)x^{-m}(ex)^m\csc(d(a+b(-n\log(x)+\log(cx^n))))\left(\frac{x^{1+m}\csc(d(a+b\log(cx^n)))\sin(bdn\log(x))}{1+m} - \frac{ie^{-\frac{(1+2m)(a+}{}}}{}\right.}{}$$

```
[In] Integrate[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -((x*(e*x)^m)/(1 + m)) + (x*(e*x)^m*Csc[d*(a + b*(-(n*Log[x]) + Log[c*x^n])
)]*Csc[b*d*n*Log[x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Sin[b*d*n*Log[x
]])/(b*d*n) - ((1 + m)*(e*x)^m*Csc[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*((
x^(1 + m)*Csc[d*(a + b*Log[c*x^n])]*Sin[b*d*n*Log[x]])/(1 + m) - (I*(I*E^((
a + 2*a*m + b*(1 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b
*n))*(1 + m + (2*I)*b*d*n)*Cot[d*(a + b*Log[c*x^n])] - E^((a + 2*a*m + b*(1
 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b*n))*(1 + m + (2
*I)*b*d*n)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 +
 m))/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] - E^((a*(1 + 2*m + (2*I)*b*d*
n))/(b*n) + (1 + m + (2*I)*b*d*n)*Log[x] + ((1 + 2*m + (2*I)*b*d*n)*(-(n*Lo
g[x]) + Log[c*x^n]))/n)*(1 + m)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*
I)*b*d*n))/(b*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), E^((2*I)*d*(a
 + b*Log[c*x^n]))])*Sin[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))])/(E^(((1 + 2*
m)*(a + b*(-(n*Log[x]) + Log[c*x^n])))/(b*n))*(1 + m)*(1 + m + (2*I)*b*d*n)
)))/(b*d*n*x^m)
```

Maple [F]

$$\int (ex)^m \cot \left(d(a + b\ln \left(c\,x^n\right))\right)^2 dx$$

```
[In] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^2,x)
```

```
[Out] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int (ex)^m \cot^2\left(d(a + b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \cot\left((b\log\left(cx^n\right) + a)d\right)^2\,dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*cot(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int (ex)^m \cot^2\left(d(a + b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \cot^2\left(ad + bd\log\left(cx^n\right)\right)dx$$

```
[In] integrate((e*x)**m*cot(d*(a+b*ln(c*x**n)))**2,x)
```

```
[Out] Integral((e*x)**m*cot(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cot((b\log(cx^n)+a)d)^2\,dx$$

[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")

[Out] -((b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*e^m*n*x*x^m*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*e^m*n*x*x^m*sin(2*b*d*log(x^n) + 2*a*d)^2 + b*d*e^m*n*x*x^m - 2*(b*d*e^m*n*cos(2*b*d*log(c)) - e^m*m*sin(2*b*d*log(c)) - e^m*sin(2*b*d*log(c)))*x*x^m*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*e^m*n*sin(2*b*d*log(c)) + e^m*m*cos(2*b*d*log(c)) + e^m*cos(2*b*d*log(c)))*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) + (((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + ((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2 - 2*(b^2*d^2*e^m*m^2*cos(2*b*d*log(c)) + 2*b^2*d^2*e^m*m*cos(2*b*d*log(c)) + b^2*d^2*e^m*cos(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^2*d^2*e^m*m^2*sin(2*b*d*log(c)) + 2*b^2*d^2*e^m*m*sin(2*b*d*log(c)) + b^2*d^2*e^m*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d) + (b^2*d^2*e^m*m^2 + 2*b^2*d^2*e^m*m + b^2*d^2*e^m)*n^2)*integrate((x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x) - (((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + ((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2 - 2*(b^2*d^2*e^m*m^2*cos(2*b*d*log(c)) + 2*b^2*d^2*e^m*m*cos(2*b*d*log(c)) + b^2*d^2*e^m*cos(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^2*d^2*e^m*m^2*sin(2*b*d*log(c)) + 2*b^2*d^2*e^m*m*sin(2*b*d*log(c)) + b^2*d^2*e^m*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d) + (b^2*d^2*e^m*m^2 + 2*b^2*d^2*e^m*m + b^2*d^2*e^m)*n^2)*integrate(-(x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*lo

```
g(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d*log(c))^2 + b^2*d
^2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x))/((b*d*cos(2*b*d*l
og(c))^2 + b*d*sin(2*b*d*log(c))^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b
*d*log(c))^2)*m)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 + (b*d*cos(2*b*d*log(c))^2
 + b*d*sin(2*b*d*log(c))^2 + (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c
))^2)*m)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 - 2*(b*d*m*cos(2*b*d*log(c)) + b*d
*cos(2*b*d*log(c)))*n*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b*d*m*sin(2*b*d*log(
c)) + b*d*sin(2*b*d*log(c)))*n*sin(2*b*d*log(x^n) + 2*a*d) + (b*d*m + b*d)*
n)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^2(d(a+b\log(cx^n)))\,dx = \int \cot(d\,(a+b\,\ln(c\,x^n)))^2\,(e\,x)^m\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^2*(e*x)^m,x)
```

```
[Out] int(cot(d*(a + b*log(c*x^n)))^2*(e*x)^m, x)
```

3.228 $\int (ex)^m \cot^3(d(a+b\log(cx^n)))\,dx$

Optimal result 2297
Rubi [A] (verified) 2297
Mathematica [A] (verified) 2300
Maple [F] 2301
Fricas [F] 2301
Sympy [F(-1)] 2302
Maxima [F] 2302
Giac [F(-1)] 2306
Mupad [F(-1)] 2306

Optimal result

Integrand size = 21, antiderivative size = 350

$$\int (ex)^m \cot^3(d(a+b\log(cx^n)))\,dx = \frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} + \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} + \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n}+\frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(1+m)n^2}$$

```
[Out] 1/2*(I*(1+m)-b*d*n)*(1+m+2*I*b*d*n)*(e*x)^(1+m)/b^2/d^2/e/(1+m)/n^2+1/2*(e*
x)^(1+m)*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^2/b/d/e/n/(1-exp(2*I*a*d)*(c*x^
n)^(2*I*b*d))^2+1/2*I*(e*x)^(1+m)*(exp(2*I*a*d)*(1+m-2*I*b*d*n)/n+exp(4*I*a
*d)*(1+m+2*I*b*d*n)*(c*x^n)^(2*I*b*d)/n)/b^2/d^2/e/exp(2*I*a*d)/n/(1-exp(2*
I*a*d)*(c*x^n)^(2*I*b*d))-I*(-2*b^2*d^2*n^2+m^2+2*m+1)*(e*x)^(1+m)*hypergeo
m([1, -1/2*I*(1+m)/b/d/n],[1-1/2*I*(1+m)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b
*d))/b^2/d^2/e/(1+m)/n^2
```

Rubi [A] (verified)

Time = 0.57 (sec) , antiderivative size = 350, normalized size of antiderivative = 1.00, number of steps used = 6, number of rules used = 6, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.286, Rules used

$= \{4594, 4592, 516, 608, 470, 371\}$

$$\int (ex)^m \cot^3 (d(a+b\log (cx^n)))\, dx = -\frac{i(ex)^{m+1} (-2b^2d^2n^2+m^2+2m+1) \text{Hypergeometric2F1}\left(1, -\frac{i(m+1)}{2bdn}, 1-\frac{i(m+1)}{2bdn}, e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(m+1)n^2} + \frac{ie^{-2iad}(ex)^{m+1}\left(\frac{e^{4iad}(2ibdn+m+1)(cx^n)^{2ibd}}{n}+\frac{e^{2iad}(-2ibdn+m+1)}{n}\right)}{2b^2d^2en\left(1-e^{2iad}(cx^n)^{2ibd}\right)} + \frac{(ex)^{m+1}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} + \frac{(ex)^{m+1}(-bdn+i(m+1))(2ibdn+m+1)}{2b^2d^2e(m+1)n^2}$$

```
[In] Int[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] ((I*(1 + m) - b*d*n)*(1 + m + (2*I)*b*d*n)*(e*x)^(1 + m))/(2*b^2*d^2*e*(1 +
 m)*n^2) + ((e*x)^(1 + m)*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^2)/(2*b*d
*e*n*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^2) + ((I/2)*(e*x)^(1 + m)*((E^
((2*I)*a*d)*(1 + m - (2*I)*b*d*n))/n + (E^((4*I)*a*d)*(1 + m + (2*I)*b*d*n)
*(c*x^n)^((2*I)*b*d))/n))/(b^2*d^2*e*E^((2*I)*a*d)*n*(1 - E^((2*I)*a*d)*(c*
x^n)^((2*I)*b*d))) - (I*(1 + 2*m + m^2 - 2*b^2*d^2*n^2)*(e*x)^(1 + m)*Hyper
geometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1 + m))/(b*d*n), E^
((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(b^2*d^2*e*(1 + m)*n^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 470

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_.)*((c_) + (d_.)*(x_)^(n
_)), x_Symbol] :> Simp[d*(e*x)^(m + 1)*((a + b*x^n)^(p + 1)/(b*e*(m + n*(p
+ 1) + 1))), x] - Dist[(a*d*(m + 1) - b*c*(m + n*(p + 1) + 1))/(b*(m + n*(p
 + 1) + 1)), Int[(e*x)^m*(a + b*x^n)^p, x], x] /; FreeQ[{a, b, c, d, e, m,
n, p}, x] && NeQ[b*c - a*d, 0] && NeQ[m + n*(p + 1) + 1, 0]
```

Rule 516

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[(-(c*b - a*d))*(e*x)^(m + 1)*(a + b*x^n)^(p + 1)
*((c + d*x^n)^(q - 1)/(a*b*e*n*(p + 1))), x] + Dist[1/(a*b*n*(p + 1)), Int[
(e*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 2)*Simp[c*(c*b*n*(p + 1) + (c*
```

```
b - a*d)*(m + 1)) + d*(c*b*n*(p + 1) + (c*b - a*d)*(m + n*(q - 1) + 1))*x^n
, x], x], x] /; FreeQ[{a, b, c, d, e, m, n}, x] && NeQ[b*c - a*d, 0] && LtQ
[p, -1] && GtQ[q, 1] && IntBinomialQ[a, b, c, d, e, m, n, p, q, x]
```

Rule 608

```
Int[((g_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_.)*((e_) + (f_.)*(x_)^(n_)), x_Symbol] :> Simp[(-(b*e - a*f))*(g*x)^(
m + 1)*(a + b*x^n)^(p + 1)*((c + d*x^n)^q/(a*b*g*n*(p + 1))), x] + Dist[1/(
a*b*n*(p + 1)), Int[(g*x)^m*(a + b*x^n)^(p + 1)*(c + d*x^n)^(q - 1)*Simp[c*
(b*e*n*(p + 1) + (b*e - a*f)*(m + 1)) + d*(b*e*n*(p + 1) + (b*e - a*f)*(m +
 n*q + 1))*x^n, x], x], x] /; FreeQ[{a, b, c, d, e, f, g, m, n}, x] && LtQ[
p, -1] && GtQ[q, 0] &&  !(EqQ[q, 1] && SimplerQ[b*c - a*d, b*e - a*f])
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cot^3(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)^3}{\left(1-e^{2iad}x^{2ibd}\right)^3}\,dx,x,cx^n\right)}{en}$$

$$= \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} - \frac{\left(ie^{-2iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(-i-ie^{2iad}x^{2ibd}\right)\left(\frac{2e^{2iad}(1+m-2ibdn)}{n}+\frac{2e^{4iad}(1+m+2ibdn)x^{2ibd}}{n}\right)}{\left(1-e^{2iad}x^{2ibd}\right)^2}\right.}{4bden}$$

$$= \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} + \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} + \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(e^{-4iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}\left(\frac{4e^{4iad}(1+m-2ibdn)(i+im+bdn)}{n^2} + \frac{4e^{6iad}(i(1+m)-bdn)(1+m+2ibdn)x^{2ib}}{n^2}\right.}{1-e^{2iad}x^{2ibd}}\right.}{8b^2d^2en}$$

$$= \frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} + \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} + \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} + \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{\left(i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{1-e^{2iad}x^{2ibd}}\,dx, x, cx^n\right)}{b^2d^2en^3}$$

$$= \frac{(i(1+m)-bdn)(1+m+2ibdn)(ex)^{1+m}}{2b^2d^2e(1+m)n^2} + \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^2}{2bden\left(1-e^{2iad}(cx^n)^{2ibd}\right)^2} + \frac{ie^{-2iad}(ex)^{1+m}\left(\frac{e^{2iad}(1+m-2ibdn)}{n} + \frac{e^{4iad}(1+m+2ibdn)(cx^n)^{2ibd}}{n}\right)}{2b^2d^2en\left(1-e^{2iad}(cx^n)^{2ibd}\right)} - \frac{i(1+2m+m^2-2b^2d^2n^2)(ex)^{1+m}\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},1-\frac{i(1+m)}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{b^2d^2e(1+m)n^2}$$

Mathematica [A] (verified)

Time = 14.56 (sec) , antiderivative size = 639, normalized size of antiderivative = 1.83

$$\int (ex)^m \cot^3(d(a+b\log(cx^n)))\,dx = -\frac{x(ex)^m\cot(d(a+b(-n\log(x)+\log(cx^n))))}{1+m} - \frac{x(ex)^m\csc^2(bdn\log(x)+d(a+b(-n\log(x)+\log(cx^n))))}{2bdn} + \frac{(1+m)x(ex)^m\csc(d(a+b(-n\log(x)+\log(cx^n))))\csc(bdn\log(x)+d(a+b(-n\log(x)+\log(cx^n))))\,\mathrm{s}}{2b^2d^2n^2} + \frac{(-1-2m-m^2+2b^2d^2n^2)x^{-m}(ex)^m\csc(d(a+b(-n\log(x)+\log(cx^n))))\left(\frac{x^{1+m}\csc(d(a+b\log(cx^n)))\sin(bdn}{1+m}\right.}{}$$

```
[In] Integrate[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] -((x*(e*x)^m*Cot[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))])/(1 + m)) - (x*(e*x)
^m*Csc[b*d*n*Log[x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]^2)/(2*b*d*n) +
((1 + m)*x*(e*x)^m*Csc[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Csc[b*d*n*Log[
x] + d*(a + b*(-(n*Log[x]) + Log[c*x^n]))]*Sin[b*d*n*Log[x]])/(2*b^2*d^2*n^
2) + ((-1 - 2*m - m^2 + 2*b^2*d^2*n^2)*(e*x)^m*Csc[d*(a + b*(-(n*Log[x]) +
Log[c*x^n]))]*((x^(1 + m)*Csc[d*(a + b*Log[c*x^n])]*Sin[b*d*n*Log[x]])/(1 +
 m) - (I*(I*E^((a + 2*a*m + b*(1 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) +
 Log[c*x^n]))/(b*n))*(1 + m + (2*I)*b*d*n)*Cot[d*(a + b*Log[c*x^n])] - E^((
a + 2*a*m + b*(1 + m)*n*Log[x] + b*(1 + 2*m)*(-(n*Log[x]) + Log[c*x^n]))/(b
*n))*(1 + m + (2*I)*b*d*n)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n),
 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] - E^((a*(1 +
2*m + (2*I)*b*d*n))/(b*n) + (1 + m + (2*I)*b*d*n)*Log[x] + ((1 + 2*m + (2*I
)*b*d*n)*(-(n*Log[x]) + Log[c*x^n]))/n)*(1 + m)*Hypergeometric2F1[1, ((-1/2
*I)*(1 + m + (2*I)*b*d*n))/(b*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n
), E^((2*I)*d*(a + b*Log[c*x^n]))])*Sin[d*(a + b*(-(n*Log[x]) + Log[c*x^n])
)])/(E^(((1 + 2*m)*(a + b*(-(n*Log[x]) + Log[c*x^n])))/(b*n))*(1 + m)*(1 +
m + (2*I)*b*d*n))))/(2*b^2*d^2*n^2*x^m)
```

Maple [F]

$$\int (ex)^m \cot(d(a+b\ln(c\,x^n)))^3 dx$$

```
[In] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^3,x)
```

```
[Out] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^3,x)
```

Fricas [F]

$$\int (ex)^m \cot^3(d(a+b\log(cx^n)))\ dx = \int (ex)^m \cot((b\log(cx^n)+a)d)^3\ dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^3,x, algorithm="fricas")
```

```
[Out] integral((e*x)^m*cot(b*d*log(c*x^n) + a*d)^3, x)
```

Sympy [F(-1)]

Timed out.

$$\int (ex)^m \cot^3(d(a + b\log(cx^n)))\, dx = \text{Timed out}$$

```
[In] integrate((e*x)**m*cot(d*(a+b*ln(c*x**n)))**3,x)
[Out] Timed out
```

Maxima [F]

$$\int (ex)^m \cot^3(d(a + b\log(cx^n)))\, dx = \int (ex)^m \cot((b\log(cx^n) + a)d)^3\, dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^3,x, algorithm="maxima")
[Out] (4*(b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^2)*e^m*n*x*x^m*cos(2*b*
d*log(x^n) + 2*a*d)^2 + 4*(b*d*cos(2*b*d*log(c))^2 + b*d*sin(2*b*d*log(c))^
2)*e^m*n*x*x^m*sin(2*b*d*log(x^n) + 2*a*d)^2 - (2*b*d*e^m*n*cos(2*b*d*log(c
)) - e^m*m*sin(2*b*d*log(c)) - e^m*sin(2*b*d*log(c)))*x*x^m*cos(2*b*d*log(x
^n) + 2*a*d) + (2*b*d*e^m*n*sin(2*b*d*log(c)) + e^m*m*cos(2*b*d*log(c)) + e
^m*cos(2*b*d*log(c)))*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) + (((cos(2*b*d*log(
c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m - 2*(b*d
*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b*d*sin(4*b*d*log(c))*sin(2*b*d*log(
c)))*e^m*n + (cos(2*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2
*b*d*log(c)))*e^m)*x*x^m*cos(2*b*d*log(x^n) + 2*a*d) - ((cos(4*b*d*log(c))*
cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + 2*(b*d*cos
(2*b*d*log(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(2*b*d*log(c)))
*e^m*n + (cos(4*b*d*log(c))*cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d
*log(c)))*e^m)*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) - (e^m*m*sin(4*b*d*log(c))
 + e^m*sin(4*b*d*log(c)))*x*x^m)*cos(4*b*d*log(x^n) + 4*a*d) - 2*(2*b^6*d^6
*e^m*n^6 - (b^4*d^4*e^m*m^2 + 2*b^4*d^4*e^m*m + b^4*d^4*e^m)*n^4 + (2*(b^6*
d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*
cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos
(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*
log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*cos(4*b*d*log(x^n) + 4*a
*d)^2 + 4*(2*(b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^
m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^
2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (
b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*cos(2*
b*d*log(x^n) + 2*a*d)^2 + (2*(b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b
*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*l
og(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(
```

c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*sin(4*b*d*log(x^n) + 4*a*d)^2 + 4*(2*(b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(2*b^6*d^6*e^m*n^6*cos(4*b*d*log(c)) - (b^4*d^4*e^m*m^2*cos(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(4*b*d*log(c)) + b^4*d^4*e^m*cos(4*b*d*log(c)))*n^4 - 2*(2*(b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*(2*(b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) - 4*(2*b^6*d^6*e^m*n^6*cos(2*b*d*log(c)) - (b^4*d^4*e^m*m^2*cos(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(2*b*d*log(c)) + b^4*d^4*e^m*cos(2*b*d*log(c)))*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*(2*b^6*d^6*e^m*n^6*sin(4*b*d*log(c)) - (b^4*d^4*e^m*m^2*sin(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(4*b*d*log(c)) + b^4*d^4*e^m*sin(4*b*d*log(c)))*n^4 - 2*(2*(b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d) + 2*(2*(b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d) + 4*(2*b^6*d^6*e^m*n^6*sin(2*b*d*log(c)) - (b^4*d^4*e^m*m^2*sin(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(2*b*d*log(c)) + b^4*d^4*e^m*sin(2*b*d*log(c)))*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*integrate(1/4*(x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^4*d^4*n^4*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^4*d^4*n^4*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) + b^4*d^4*n^4 + (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*cos(b*d*log(x^n) + a*d)^2 + (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*sin(b*d*log(x^n) + a*d)^2), x) + 2*(2*b^6*d^6*e^m*n^6 - (b^4*d^4

```
*e^m*m^2 + 2*b^4*d^4*e^m*m + b^4*d^4*e^m)*n^4 + (2*(b^6*d^6*cos(4*b*d*log(c
))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))^2
 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 +
b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4
*sin(4*b*d*log(c))^2)*e^m)*n^4)*cos(4*b*d*log(x^n) + 4*a*d)^2 + 4*(2*(b^6*d
^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 - ((b^4*d^4*c
os(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(
2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*l
og(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*
d)^2 + (2*(b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n
^6 - ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 +
 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4
*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*sin(4*b*d
*log(x^n) + 4*a*d)^2 + 4*(2*(b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*
d*log(c))^2)*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*lo
g(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c
))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e
^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(2*b^6*d^6*e^m*n^6*cos(4*b*d*log
(c)) - (b^4*d^4*e^m*m^2*cos(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(4*b*d*log(c
)) + b^4*d^4*e^m*cos(4*b*d*log(c)))*n^4 - 2*(2*(b^6*d^6*cos(4*b*d*log(c))*c
os(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - (
(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*si
n(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) +
 b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*lo
g(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)
*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*(2*(b^6*d^6*cos(2*b*d*log(c))*sin(4*b
*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d
^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*
d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d
^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*
sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*
sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) - 4*(2*b^6*d^6*e^m
*n^6*cos(2*b*d*log(c)) - (b^4*d^4*e^m*m^2*cos(2*b*d*log(c)) + 2*b^4*d^4*e^m
*m*cos(2*b*d*log(c)) + b^4*d^4*e^m*cos(2*b*d*log(c)))*n^4)*cos(2*b*d*log(x^
n) + 2*a*d) - 2*(2*b^6*d^6*e^m*n^6*sin(4*b*d*log(c)) - (b^4*d^4*e^m*m^2*sin
(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(4*b*d*log(c)) + b^4*d^4*e^m*sin(4*b*d*
log(c)))*n^4 - 2*(2*(b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*
cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(2*b*d*log(c))*
sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 +
2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*
sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b
^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) +
2*a*d) + 2*(2*(b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*
b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 - ((b^4*d^4*cos(4*b*d*log(c))*cos(2*
b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4
```

```
*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*
b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4
*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)
)*sin(4*b*d*log(x^n) + 4*a*d) + 4*(2*b^6*d^6*e^m*n^6*sin(2*b*d*log(c)) - (b
^4*d^4*e^m*m^2*sin(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(2*b*d*log(c)) + b^4*
d^4*e^m*sin(2*b*d*log(c)))*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*integrate(-1/4
*(x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d
*log(x^n) + a*d))/(2*b^4*d^4*n^4*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) -
2*b^4*d^4*n^4*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) - b^4*d^4*n^4 - (b^4*
d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*cos(b*d*log(x^n) + a
*d)^2 - (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*sin(b*d
*log(x^n) + a*d)^2), x) + (((cos(4*b*d*log(c))*cos(2*b*d*log(c)) + sin(4*b*
d*log(c))*sin(2*b*d*log(c)))*e^m*m + 2*(b*d*cos(2*b*d*log(c))*sin(4*b*d*log
(c)) - b*d*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(4*b*d*log(c))*
cos(2*b*d*log(c)) + sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*cos(2*b
*d*log(x^n) + 2*a*d) + ((cos(2*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*lo
g(c))*sin(2*b*d*log(c)))*e^m*m - 2*(b*d*cos(4*b*d*log(c))*cos(2*b*d*log(c))
 + b*d*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(2*b*d*log(c))*sin(
4*b*d*log(c)) - cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*sin(2*b*d*l
og(x^n) + 2*a*d) - (e^m*m*cos(4*b*d*log(c)) + e^m*cos(4*b*d*log(c)))*x*x^m)
*sin(4*b*d*log(x^n) + 4*a*d))/(4*b^2*d^2*n^2*cos(2*b*d*log(c))*cos(2*b*d*lo
g(x^n) + 2*a*d) - 4*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*
d) - b^2*d^2*n^2 - (b^2*d^2*cos(4*b*d*log(c))^2 + b^2*d^2*sin(4*b*d*log(c))
^2)*n^2*cos(4*b*d*log(x^n) + 4*a*d)^2 - 4*(b^2*d^2*cos(2*b*d*log(c))^2 + b^
2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b^2*d^2*cos
(4*b*d*log(c))^2 + b^2*d^2*sin(4*b*d*log(c))^2)*n^2*sin(4*b*d*log(x^n) + 4*
a*d)^2 - 4*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*
sin(2*b*d*log(x^n) + 2*a*d)^2 - 2*(b^2*d^2*n^2*cos(4*b*d*log(c)) - 2*(b^2*d
^2*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log(c))*sin(2*b*
d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b^2*d^2*cos(2*b*d*log(c))*s
in(4*b*d*log(c)) - b^2*d^2*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*n^2*sin(2*b
*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) + 2*(b^2*d^2*n^2*sin(4*b*
d*log(c)) - 2*(b^2*d^2*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^2*d^2*cos(4*
b*d*log(c))*sin(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^2*d^2
*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log(c))*sin(2*b*d*
log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d))
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \cot^3 (d(a + b\log (cx^n)))\ dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^3,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^3 (d(a + b\log (cx^n)))\ dx = \int \cot(d\,(a + b\,\ln (c\,x^n)))^3\,(e\,x)^m\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^3*(e*x)^m,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^3*(e*x)^m, x)
```

3.229 $\int \cot^p(d(a+b\log(cx^n)))\,dx$

Optimal result 2307
Rubi [A] (verified) 2307
Mathematica [B] (warning: unable to verify) 2309
Maple [F] 2310
Fricas [F] 2310
Sympy [F] 2310
Maxima [F] 2311
Giac [F(-1)] 2311
Mupad [F(-1)] 2311

Optimal result

Integrand size = 15, antiderivative size = 190

$$\int \cot^p(d(a+b\log(cx^n)))\,dx = x\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p \text{AppellF1}\left(-\frac{i}{2bdn},p,-p,1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[Out] x*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*(-I*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d
))/(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d)))^p*AppellF1(-1/2*I/b/d/n,p,-p,1-1/2*I
/b/d/n,exp(2*I*a*d)*(c*x^n)^(2*I*b*d),-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/((1+
exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.21 (sec) , antiderivative size = 190, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}} = 0.333$, Rules used

$= \{4590, 4592, 1986, 525, 524\}$

$$\int \cot^p\left(d(a+b\log\left(cx^n\right))\right)\,dx = x\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}\left(cx^n\right)^{2ibd}}\right)^p \text{AppellF1}\left(-\frac{i}{2bdn},p,-p,1-\frac{i}{2bdn},e^{2iad}(cx^n)^{2ibd},-e^{2iad}(cx^n)^{2ibd}\right)$$

```
[In] Int[Cot[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*(((-I)*(1 + E^((2*I)*a*d)*(c*x
^n)^((2*I)*b*d)))/(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*AppellF1[(-1/2
*I)/(b*d*n), p, -p, 1 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d), -
(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d
))^p
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4590

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Cot[d*(a + b*Log[x])]^p, x],
```

```
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\cot^p(d(a+b\log(x)))\,dx, x, cx^n\right)}{n}$$
$$= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\left(\frac{-i-ie^{2iad}x^{2ibd}}{1-e^{2iad}x^{2ibd}}\right)^p dx, x, cx^n\right)}{n}$$
$$= \frac{\left(x(cx^n)^{-1/n}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(-i-ie^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{-i-ie^{2iad}(cx^n)^{2ibd}}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}(\cdots\right.}{n}$$
$$= \frac{\left(x(cx^n)^{-1/n}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(\frac{-i-ie^{2iad}(cx^n)^{2ibd}}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}(1-\cdots\right.}{n}$$
$$= x\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}\left(cx^n\right)^{2ibd}}\right)^p\text{AppellF1}\left(-\frac{i}{2bdn}, p, -p, 1-\frac{i}{2bdn}, e^{2iad}(cx^n)^{2ibd}, -e^{2iad}(cx^n)^{2ibd}\right)$$

Mathematica [B] (warning: unable to verify)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 458 vs. 2(190) = 380.

Time = 1.03 (sec) , antiderivative size = 458, normalized size of antiderivative = 2.41

$$\int \cot^p\left(d(a+b\log\left(cx^n\right))\right)\,dx$$
$$= \frac{(-i+2bdn)x\left(\frac{i\left(1+e^{2ia\cdots}\right)}{-1+e^{2i\cdots}}\right.\cdots}{2bde^{2iad}np\left(cx^n\right)^{2ibd}\text{AppellF1}\left(1-\frac{i}{2bdn}, p, 1-p, 2-\frac{i}{2bdn}, e^{2iad}\left(cx^n\right)^{2ibd}, -e^{2iad}\left(cx^n\right)^{2ibd}\right)+2bde^{2iad}np\left(c\cdots\right.}$$

```
[In] Integrate[Cot[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((-I + 2*b*d*n)*x*((I*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))/(-1 + E^((2*
I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*AppellF1[(-1/2*I)/(b*d*n), p, -p, 1 - (I/2)
/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)
*b*d))])/(2*b*d*E^((2*I)*a*d)*n*p*(c*x^n)^((2*I)*b*d)*AppellF1[1 - (I/2)/(b
*d*n), p, 1 - p, 2 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d), -(E^
((2*I)*a*d)*(c*x^n)^((2*I)*b*d))] + 2*b*d*E^((2*I)*a*d)*n*p*(c*x^n)^((2*I)*
b*d)*AppellF1[1 - (I/2)/(b*d*n), 1 + p, -p, 2 - (I/2)/(b*d*n), E^((2*I)*a*d
)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))] + (-I + 2*b*d*
n)*AppellF1[(-1/2*I)/(b*d*n), p, -p, 1 - (I/2)/(b*d*n), E^((2*I)*a*d)*(c*x^
n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])
```

Maple [F]

$$\int \cot \left(d(a+b\ln \left(c\,x^{n}\right))\right)^{p}dx$$

```
[In] int(cot(d*(a+b*ln(c*x^n)))^p,x)
```

```
[Out] int(cot(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int \cot^p\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int \cot\left((b\log\left(cx^n\right)+a)d\right)^p\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
```

```
[Out] integral(cot(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int \cot^p\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int \cot^p\left(d(a+b\log\left(cx^n\right))\right)dx$$

```
[In] integrate(cot(d*(a+b*ln(c*x**n)))**p,x)
```

```
[Out] Integral(cot(d*(a + b*log(c*x**n)))**p, x)
```

Maxima [F]

$$\int \cot^p(d(a+b\log(cx^n)))\,dx = \int \cot((b\log(cx^n)+a)d)^p\,dx$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate(cot((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F(-1)]

Timed out.

$$\int \cot^p(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate(cot(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \cot^p(d(a+b\log(cx^n)))\,dx = \int \cot(d\,(a+b\,\ln(c\,x^n)))^p\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^p,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^p, x)
```

3.230 $\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx$

Optimal result 2312
Rubi [A] (verified) 2312
Mathematica [A] (verified) 2314
Maple [F] 2314
Fricas [F] 2315
Sympy [F] 2315
Maxima [F] 2315
Giac [F(-1)] 2315
Mupad [F(-1)] 2316

Optimal result

Integrand size = 21, antiderivative size = 210

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p \operatorname{AppellF1}\left(-\frac{i(1+m)}{2bdn},p,-p,1-\right.}{e(1+m)}$$

```
[Out] (e*x)^(1+m)*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*(-I*(1+exp(2*I*a*d)*(c*x^n
)^(2*I*b*d))/(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d)))^p*AppellF1(-1/2*I*(1+m)/b/
d/n,p,-p,1-1/2*I*(1+m)/b/d/n,exp(2*I*a*d)*(c*x^n)^(2*I*b*d),-exp(2*I*a*d)*(
c*x^n)^(2*I*b*d))/e/(1+m)/((1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p)
```

Rubi [A] (verified)

Time = 0.24 (sec) , antiderivative size = 210, normalized size of antiderivative = 1.00, number of steps used = 5, number of rules used = 5, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.238, Rules used = {4594, 4592, 1986, 525, 524}

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p \operatorname{AppellF1}\left(-\frac{i(m+1)}{2bdn},p,-p,1-\right.}{e(m+1)}$$

```
[In] Int[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*(((-I)*(1 + E^((2*
I)*a*d)*(c*x^n)^((2*I)*b*d)))/(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*Ap
```

```
pellF1[((-1/2*I)*(1 + m))/(b*d*n), p, -p, 1 - ((I/2)*(1 + m))/(b*d*n), E^((
2*I)*a*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(e*(1
 + m)*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p)
```

Rule 524

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Simp[a^p*c^q*((e*x)^(m + 1)/(e*(m + 1)))*AppellF1[(m
+ 1)/n, -p, -q, 1 + (m + 1)/n, (-b)*(x^n/a), (-d)*(x^n/c)], x] /; FreeQ[{a,
 b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] && NeQ[m, n
 - 1] && (IntegerQ[p] || GtQ[a, 0]) && (IntegerQ[q] || GtQ[c, 0])
```

Rule 525

```
Int[((e_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_)*((c_) + (d_.)*(x_)^(n_
))^(q_), x_Symbol] :> Dist[a^IntPart[p]*((a + b*x^n)^FracPart[p]/(1 + b*(x^
n/a))^FracPart[p]), Int[(e*x)^m*(1 + b*(x^n/a))^p*(c + d*x^n)^q, x], x] /;
FreeQ[{a, b, c, d, e, m, n, p, q}, x] && NeQ[b*c - a*d, 0] && NeQ[m, -1] &&
 NeQ[m, n - 1] &&  !(IntegerQ[p] || GtQ[a, 0])
```

Rule 1986

```
Int[(u_.)*((e_.)*((a_.) + (b_.)*(x_)^(n_.))^(q_.)*((c_) + (d_.)*(x_)^(n_))^
(r_.))^(p_), x_Symbol] :> Dist[Simp[(e*(a + b*x^n)^q*(c + d*x^n)^r)^p/((a +
 b*x^n)^(p*q)*(c + d*x^n)^(p*r))], Int[u*(a + b*x^n)^(p*q)*(c + d*x^n)^(p*r
), x], x] /; FreeQ[{a, b, c, d, e, n, p, q, r}, x]
```

Rule 4592

```
Int[Cot[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Int[(e*x)^m*((-I - I*E^(2*I*a*d)*x^(2*I*b*d))/(1 - E^(2*I*a*d)*x^(2*I*b*
d)))^p, x] /; FreeQ[{a, b, d, e, m, p}, x]
```

Rule 4594

```
Int[Cot[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Cot[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\cot^p(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}\left(cx^n\right)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\left(\frac{-i-ie^{2iad}x^{2ibd}}{1-e^{2iad}x^{2ibd}}\right)^p\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(-i-ie^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{-i-ie^{2iad}(cx^n)^{2ibd}}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p\right)\text{Subst}\left(\int x\right.}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(\frac{-i-ie^{2iad}(cx^n)^{2ibd}}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\right)\text{Subst}\left(\int x^{-1}\right.}{en}$$

$$= \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(-\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{1-e^{2iad}(cx^n)^{2ibd}}\right)^p\text{AppellF1}\left(-\frac{i(1+m)}{2bdn},p,-\right.}{e(1+m)}$$

Mathematica [A] (verified)

Time = 1.09 (sec) , antiderivative size = 205, normalized size of antiderivative = 0.98

$$\int (ex)^m\cot^p(d(a+b\log(cx^n)))\,dx$$
$$= \frac{x(ex)^m\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^{-p}\left(\frac{i\left(1+e^{2iad}(cx^n)^{2ibd}\right)}{-1+e^{2iad}(cx^n)^{2ibd}}\right)^p\text{AppellF1}\left(-\frac{i(1+m)}{2bdn},p,-p,1-\frac{i(1+}{2bd}\right.}{1+m}$$

```
[In] Integrate[(e*x)^m*Cot[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(e*x)^m*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*((I*(1 + E^((2*I)*a*d)
*(c*x^n)^((2*I)*b*d)))/(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*AppellF1
[((-1/2*I)*(1 + m))/(b*d*n), p, -p, 1 - ((I/2)*(1 + m))/(b*d*n), E^((2*I)*a
*d)*(c*x^n)^((2*I)*b*d), -(E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/((1 + m)*(1
 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p)
```

Maple [F]

$$\int (ex)^m\cot(d(a+b\ln(c\,x^n)))^p dx$$

```
[In] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^p,x)
```

```
[Out] int((e*x)^m*cot(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cot\left((b\log(cx^n)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*cot(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cot^p(ad+bd\log(cx^n))\,dx$$

```
[In] integrate((e*x)**m*cot(d*(a+b*ln(c*x**n)))**p,x)
[Out] Integral((e*x)**m*cot(a*d + b*d*log(c*x**n))**p, x)
```

Maxima [F]

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \cot\left((b\log(cx^n)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*cot((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F(-1)]

Timed out.

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \text{Timed out}$$

```
[In] integrate((e*x)^m*cot(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \cot^p(d(a+b\log(cx^n)))\,dx = \int \cot(d\,(a+b\,\ln(c\,x^n)))^p\,(e\,x)^m\,dx$$

```
[In] int(cot(d*(a + b*log(c*x^n)))^p*(e*x)^m,x)
[Out] int(cot(d*(a + b*log(c*x^n)))^p*(e*x)^m, x)
```

3.231 $\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx$

Optimal result 2317
Rubi [A] (verified) 2318
Mathematica [A] (verified) 2321
Maple [A] (verified) 2321
Fricas [C] (verification not implemented) 2322
Sympy [F(-1)] 2322
Maxima [F] 2323
Giac [F(-1)] 2323
Mupad [B] (verification not implemented) 2323

Optimal result

Integrand size = 19, antiderivative size = 201

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

```
[Out] -2/3*cot(a+b*ln(c*x^n))^(3/2)/b/n+1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^
(1/2))/b/n*2^(1/2)+1/2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/
2)+1/4*ln(1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2
)-1/4*ln(1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.16 (sec) , antiderivative size = 201, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}} = 0.474$, Rules used = {3554, 3557, 335, 303, 1176, 631, 210, 1179, 642}

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} - \frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[Cot[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - (2*Cot[a + b*Log[c*
x^n]]^(3/2))/(3*b*n) + Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a
+ b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n
]]] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \cot^{\frac{5}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} - \frac{\text{Subst}\left(\int\sqrt{\cot(a+bx)}\,dx, x, \log(cx^n)\right)}{n}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{\text{Subst}\left(\int\frac{\sqrt{x}}{1+x^2}\,dx, x, \cot(a+b\log(cx^n))\right)}{bn}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{2\text{Subst}\left(\int\frac{x^2}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} - \frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn} + \frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= -\frac{2\cot^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} - \frac{2\cot^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{3bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}+\cot\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}+\cot\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.35 (sec) , antiderivative size = 121, normalized size of antiderivative = 0.60

$$\int \frac{\cot^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = -\frac{-3\arctan\left(\sqrt[4]{-\cot^2\left(a+b\log\left(cx^n\right)\right)}\right)\sqrt[4]{-\cot\left(a+b\log\left(cx^n\right)\right)} + 3\operatorname{arctanh}\left(\sqrt[4]{-\cot^2\left(a+b\log\left(cx^n\right)\right)}\right.}{3bn\sqrt[4]{\cot\left(a+b\log\left(cx^n\right)\right)}}$$

[In] Integrate[Cot[a + b*Log[c*x^n]]^(5/2)/x,x]

[Out] -1/3*(-3*ArcTan[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c*x^n]])^(1/4) + 3*ArcTanh[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c*x^n]])^(1/4) + 2*Cot[a + b*Log[c*x^n]]^(7/4))/(b*n*Cot[a + b*Log[c*x^n]]^(1/4))

Maple [A] (verified)

Time = 1.23 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.69

method	result
derivativedivides	$\frac{-\frac{2\cot(a+b\ln(c\,x^n))^{\frac{3}{2}}}{3}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-\right.\right.}{4}}{nb}$
default	$\frac{-\frac{2\cot(a+b\ln(c\,x^n))^{\frac{3}{2}}}{3}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-\right.\right.}{4}}{nb}$

[In] int(cot(a+b*ln(c*x^n))^(5/2)/x,x,method=_RETURNVERBOSE)

[Out] 1/n/b*(-2/3*cot(a+b*ln(c*x^n))^(3/2)+1/4*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/(1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(

```
c*x^n))^(1/2)))+2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 696, normalized size of antiderivative = 3.46

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(cot(a+b*log(c*x^n))^(5/2)/x,x, algorithm="fricas")
```

```
[Out] -1/6*(3*b*n*(-1/(b^4*n^4))^(1/4)*log((b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*lo
g(x) + 2*b*log(c) + 2*a) + b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x
) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*
log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))*sin
(2*b*n*log(x) + 2*b*log(c) + 2*a) - 3*b*n*(-1/(b^4*n^4))^(1/4)*log(-(b*n*(-
1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n*(-1/(b^4*n^4)
)^(1/4) - sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x)
+ 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x
) + 2*b*log(c) + 2*a) + 1))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a) + 3*I*b*n*
(-1/(b^4*n^4))^(1/4)*log((I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b
*log(c) + 2*a) + I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*
log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) +
 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))*sin(2*b*n*l
og(x) + 2*b*log(c) + 2*a) - 3*I*b*n*(-1/(b^4*n^4))^(1/4)*log((-I*b*n*(-1/(b
^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b^4*n^4))^
(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) +
2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x)
+ 2*b*log(c) + 2*a) + 1))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a) + 4*sqrt((co
s(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a
))*(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))/(b*n*sin(2*b*n*log(x) + 2*b*
log(c) + 2*a))
```

Sympy [F(-1)]

Timed out.

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*ln(c*x**n))**(5/2)/x,x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cot(b\log(cx^n)+a)^{\frac{5}{2}}}{x}\,dx$$

```
[In] integrate(cot(a+b*log(c*x^n))^(5/2)/x,x, algorithm="maxima")
[Out] integrate(cot(b*log(c*x^n) + a)^(5/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^(5/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 28.09 (sec) , antiderivative size = 79, normalized size of antiderivative = 0.39

$$\int \frac{\cot^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\sqrt{\cot(a+b\ln(c\,x^n))}\right)}{b\,n} - \frac{2\cot(a+b\ln(c\,x^n))^{3/2}}{3\,b\,n} - \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\sqrt{\cot(a+b\ln(c\,x^n))}\right)}{b\,n}$$

```
[In] int(cot(a + b*log(c*x^n))^(5/2)/x,x)
[Out] ((-1)^(1/4)*atan((-1)^(1/4)*cot(a + b*log(c*x^n))^(1/2)))/(b*n) - (2*cot(a
+ b*log(c*x^n))^(3/2))/(3*b*n) - ((-1)^(1/4)*atanh((-1)^(1/4)*cot(a + b*log
(c*x^n))^(1/2)))/(b*n)
```

3.232 $\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 2324
Rubi [A] (verified) 2325
Mathematica [A] (verified) 2328
Maple [A] (verified) 2328
Fricas [C] (verification not implemented) 2329
Sympy [F] 2330
Maxima [F] 2330
Giac [F(-1)] 2330
Mupad [B] (verification not implemented) 2330

Optimal result

Integrand size = 19, antiderivative size = 199

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

```
[Out] 1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/2*arctan(1+2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1+cot(a+b*ln(c*x^n))-2^(
1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1+cot(a+b*ln(c*x^n))+2^(1
/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-2*cot(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.17 (sec) , antiderivative size = 199, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}} = 0.474$, Rules used = {3554, 3557, 335, 217, 1179, 642, 1176, 631, 210}

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} - \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn}$$

```
[In] Int[Cot[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - (2*Sqrt[Cot[a + b*L
og[c*x^n]]])/(b*n) - Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a +
b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]
] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3554

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[b*((b*Tan[c + d
*x])^(n - 1)/(d*(n - 1))), x] - Dist[b^2, Int[(b*Tan[c + d*x])^(n - 2), x],
 x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \cot^{\frac{3}{2}}(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\cot(a+bx)}}\,dx, x, \log(cx^n)\right)}{n}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} + \frac{\text{Subst}\left(\int \frac{1}{\sqrt{x}(1+x^2)}\,dx, x, \cot(a+b\log(cx^n))\right)}{bn}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} + \frac{2\text{Subst}\left(\int \frac{1}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} + \frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn} + \frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} + \frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= -\frac{2\sqrt{\cot(a+b\log(cx^n))}}{bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{\sqrt{2}bn} - \frac{2\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}}{bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}+\cot\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}+\cot\left(a+b\log\left(cx^n\right)\right)\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.26 (sec) , antiderivative size = 177, normalized size of antiderivative = 0.89

$$\int \frac{\cot^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = -\frac{\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}} + 2\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(\right.}{2}}{bn}$$

```
[In] Integrate[Cot[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] -((ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/Sqrt[2] - ArcTan[1 + Sqr
t[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/Sqrt[2] + 2*Sqrt[Cot[a + b*Log[c*x^n]]] +
 Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]]]/(2*Sq
rt[2]) - Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]
]]/(2*Sqrt[2]))/(b*n))
```

Maple [A] (verified)

Time = 0.93 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.70

method	result
derivativedivides	$\frac{-2\sqrt{\cot(a+b\ln(cx^n))}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(cx^n))+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}{1+\cot(a+b\ln(cx^n))-\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}\right)+2\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}\right)+2\arctan\left(-1\right.}{4}}{nb}$
default	$\frac{-2\sqrt{\cot(a+b\ln(cx^n))}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(cx^n))+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}{1+\cot(a+b\ln(cx^n))-\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}\right)+2\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}\right)+2\arctan\left(-1\right.}{4}}{nb}$

```
[In] int(cot(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(-2*cot(a+b*ln(c*x^n))^(1/2)+1/4*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))+2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))/(1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*
```

```
x^n))^(1/2)))+2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1
/2)*cot(a+b*ln(c*x^n))^(1/2))))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.27 (sec) , antiderivative size = 627, normalized size of antiderivative = 3.15

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx =$$

$$-\frac{bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}{\sin(2\,bn\log(x)+2\,b\log(c)+2\,a)}}\sin(2\,bn\log(x)+\cdots}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}\right.}{}$$

```
[In] integrate(cot(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
```

```
[Out] -1/2*(b*n*(-1/(b^4*n^4))^(1/4)*log((b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*
log(x) + 2*b*log(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n
*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(
2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1
)) - b*n*(-1/(b^4*n^4))^(1/4)*log(-(b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*
log(x) + 2*b*log(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) - sqrt((cos(2*b*n
*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(
2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1
)) - I*b*n*(-1/(b^4*n^4))^(1/4)*log((I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b
*n*log(x) + 2*b*log(c) + 2*a) + I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(
2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))
*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a
) + 1)) + I*b*n*(-1/(b^4*n^4))^(1/4)*log((-I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*c
os(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt
((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) +
 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c)
 + 2*a) + 1)) + 4*sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n
*log(x) + 2*b*log(c) + 2*a)))/(b*n)
```

Sympy [F]

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(cot(a+b*ln(c*x**n))**(3/2)/x,x)
[Out] Integral(cot(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\cot(b\log(cx^n)+a)^{\frac{3}{2}}}{x}\,dx$$

```
[In] integrate(cot(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")
[Out] integrate(cot(b*log(c*x^n) + a)^(3/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 28.34 (sec) , antiderivative size = 80, normalized size of antiderivative = 0.40

$$\int \frac{\cot^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\sqrt{\cot(a+b\ln(c\,x^n))}}{b\,n} - \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\sqrt{\cot(a+b\ln(c\,x^n))}\right)\,1\mathrm{i}}{b\,n} - \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\sqrt{\cot(a+b\ln(c\,x^n))}\right)\,1\mathrm{i}}{b\,n}$$

```
[In] int(cot(a + b*log(c*x^n))^(3/2)/x,x)
[Out] - (2*cot(a + b*log(c*x^n))^(1/2))/(b*n) - ((-1)^(1/4)*atan((-1)^(1/4)*cot(a
 + b*log(c*x^n))^(1/2))*1i)/(b*n) - ((-1)^(1/4)*atanh((-1)^(1/4)*cot(a + b*
log(c*x^n))^(1/2))*1i)/(b*n)
```

3.233 $\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx$

Optimal result 2331
Rubi [A] (verified) 2331
Mathematica [A] (verified) 2334
Maple [A] (verified) 2335
Fricas [C] (verification not implemented) 2335
Sympy [F] 2336
Maxima [F] 2336
Giac [F(-1)] 2337
Mupad [B] (verification not implemented) 2337

Optimal result

Integrand size = 19, antiderivative size = 176

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1+cot(a+b*ln(c*x^n))-2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1+cot(a+b*ln(c*x^n))+2^(
1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.00, number of steps used = 12, number of rules used = 8, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.421, Rules used

= {3557, 335, 303, 1176, 631, 210, 1179, 642}

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} - \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[Sqrt[Cot[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - Log[1 - Sqrt[2]*Sqrt[C
ot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 + Sq
rt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
```

```
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sqrt{\cot(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{\text{Subst}\left(\int \frac{\sqrt{x}}{1+x^2}\,dx, x, \cot\left(a+b\log\left(cx^n\right)\right)\right)}{bn}\\
&= -\frac{2\text{Subst}\left(\int \frac{x^2}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}\\
&= \frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn} - \frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}
\end{aligned}$$

$$= -\frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= -\frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.47

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx = \frac{\left(-\arctan\left(\sqrt[4]{-\cot^2(a+b\log(cx^n))}\right)+\operatorname{arctanh}\left(\sqrt[4]{-\cot^2(a+b\log(cx^n))}\right)\right)\sqrt[4]{-\cot(a+b\log(cx^n))}}{bn\sqrt[4]{\cot(a+b\log(cx^n))}}$$

```
[In] Integrate[Sqrt[Cot[a + b*Log[c*x^n]]]/x,x]
```

[Out] ((-ArcTan[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)] + ArcTanh[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)])*(-Cot[a + b*Log[c*x^n]])^(1/4))/(b*n*Cot[a + b*Log[c*x^n]]^(1/4))

Maple [A] (verified)

Time = 1.03 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.69

method	result
derivativedivides	$-\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(}\right.\right.}{4nb}$
default	$-\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(}\right.\right.}{4nb}$

[In] int(cot(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)

[Out] -1/4/n/b*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/(1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)))+2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)))

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 539, normalized size of antiderivative = 3.06

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx$$
$$=\frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)+2\,b\log(c)}{\sin(2\,bn\log(x)+2\,b\log(c}}}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+1}\right.$$
$$-\frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-\frac{bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}-\sqrt{\frac{\cos(2\,bn\log(x)+2\,b\,l}{\sin(2\,bn\log(x)+2\,b}}}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+}\right.$$
$$+\frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)+2}{\sin(2\,bn\log(x)+}}}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+}\right.$$
$$-\frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{-i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)-i\,bn\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)}{\sin(2\,bn\log(x)}}}{\cos(2\,bn\log(x)+2\,b\log(c)+2\,a)+}\right.$$

[In] integrate(cot(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")

```
[Out] 1/2*(-1/(b^4*n^4))^(1/4)*log((b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2
*b*log(c) + 2*a) + b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*
log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) +
 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - 1/2*(-1/(
b^4*n^4))^(1/4)*log(-(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c
) + 2*a) + b*n*(-1/(b^4*n^4))^(1/4) - sqrt((cos(2*b*n*log(x) + 2*b*log(c) +
 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log
(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) + 1/2*I*(-1/(b^4*n^
4))^(1/4)*log((I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2
*a) + I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*
a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c)
 + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - 1/2*I*(-1/(b^4*n^4))
^(1/4)*log((-I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a
) - I*b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a)
 + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) +
 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1))
```

Sympy [F]

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx = \int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx$$

```
[In] integrate(cot(a+b*ln(c*x**n))**(1/2)/x,x)
[Out] Integral(sqrt(cot(a + b*log(c*x**n)))/x, x)
```

Maxima [F]

$$\int \frac{\sqrt{\cot(a+b\log(cx^n))}}{x}\,dx = \int \frac{\sqrt{\cot(b\log(cx^n)+a)}}{x}\,dx$$

```
[In] integrate(cot(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")
[Out] integrate(sqrt(cot(b*log(c*x^n) + a))/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\sqrt{\cot (a+b\log (cx^n))}}{x}\,dx = \text{Timed out}$$

```
[In] integrate(cot(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")
```

```
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 26.40 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.33

$$\int \frac{\sqrt{\cot (a+b\log (cx^n))}}{x}\,dx = \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\,\sqrt{\cot (a+b\,\ln (c\,x^n))}\right)}{b\,n} - \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\,\sqrt{\cot (a+b\,\ln (c\,x^n))}\right)}{b\,n}$$

```
[In] int(cot(a + b*log(c*x^n))^(1/2)/x,x)
```

```
[Out] ((-1)^(1/4)*atanh((-1)^(1/4)*cot(a + b*log(c*x^n))^(1/2)))/(b*n) - ((-1)^(1
/4)*atan((-1)^(1/4)*cot(a + b*log(c*x^n))^(1/2)))/(b*n)
```

3.234 $\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx$

Optimal result 2338
Rubi [A] (verified) 2338
Mathematica [A] (verified) 2341
Maple [A] (verified) 2342
Fricas [C] (verification not implemented) 2342
Sympy [F] 2343
Maxima [F] 2343
Giac [F(-1)] 2344
Mupad [B] (verification not implemented) 2344

Optimal result

Integrand size = 19, antiderivative size = 176

$$\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

```
[Out] -1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/2*arctan(1+2
^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1+cot(a+b*ln(c*x^n))-2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1+cot(a+b*ln(c*x^n))+2^(
1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.14 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.00, number of steps used = 12, number of rules used = 8, $\frac{\text{number of rules}}{\text{integrand size}} = 0.421$, Rules used

= {3557, 335, 217, 1179, 642, 1176, 631, 210}

$$\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx = \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} + \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[1/(x*Sqrt[Cot[a + b*Log[c*x^n]]]),x]
```

```
[Out] ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) - ArcTan[1 +
Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + Log[1 - Sqrt[2]*Sqrt[C
ot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 + Sq
rt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
```

```
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\cot(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{\text{Subst}\left(\int \frac{1}{\sqrt{x}(1+x^2)}\,dx, x, \cot\left(a+b\log\left(cx^n\right)\right)\right)}{bn}\\
&= -\frac{2\text{Subst}\left(\int \frac{1}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}\\
&= -\frac{\text{Subst}\left(\int \frac{1-x^2}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn} - \frac{\text{Subst}\left(\int \frac{1+x^2}{1+x^4}\,dx, x, \sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}\right)}{bn}
\end{aligned}$$

$$= -\frac{\text{Subst}\left(\int \frac{1}{1-\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} - \frac{\text{Subst}\left(\int \frac{1}{1+\sqrt{2}x+x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx, x, \sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\text{Subst}\left(\int \frac{1}{-1-x^2}\,dx, x, 1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= \frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.14 (sec) , antiderivative size = 142, normalized size of antiderivative = 0.81

$$\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx = \frac{2\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right) - 2\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right) + \log\left(1-\sqrt{2}\sqrt{\cot\right.}{2\sqrt{2}b}$$

```
[In] Integrate[1/(x*Sqrt[Cot[a + b*Log[c*x^n]]]),x]
[Out] (2*ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]] - 2*ArcTan[1 + Sqrt[2]*S
qrt[Cot[a + b*Log[c*x^n]]]] + Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] +
```

```
 Cot[a + b*Log[c*x^n]]] - Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot
[a + b*Log[c*x^n]]])/(2*Sqrt[2]*b*n)
```

Maple [A] (verified)

Time = 1.11 (sec) , antiderivative size = 122, normalized size of antiderivative = 0.69

method	result
derivativedivides	$-\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(a\right.\right.}{4nb}$
default	$-\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(a\right.\right.}{4nb}$

```
[In] int(1/x/cot(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
```

```
[Out] -1/4/n/b*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)
)/(1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)))+2*arctan(1+2^(1/
2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 571, normalized size of antiderivative = 3.24

$$\int \frac{1}{x\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}}\,dx$$

$$= \frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)+2\,b\log}{\sin(2\,bn\log(x)+2\,b\log}}}{\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+1}\right.$$

$$-\frac{1}{2}\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(-\frac{b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}-\sqrt{\frac{\cos(2\,bn\log(x)+}{\sin(2\,bn\log(x)}}}{\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+}\right.$$

$$-\frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\cos(2\,bn\log(x)}{\sin(2\,bn\log(x}}}{\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+}\right.$$

$$+\frac{1}{2}i\left(-\frac{1}{b^4n^4}\right)^{\frac{1}{4}}\log\left(\frac{-i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)-i\,b^3n^3\left(-\frac{1}{b^4n^4}\right)^{\frac{3}{4}}+\sqrt{\frac{\cos(2\,bn\log(}{\sin(2\,bn\log}}}{\cos\left(2\,bn\log\left(x\right)+2\,b\log\left(c\right)+2\,a\right)+}\right.$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] 1/2*(-1/(b^4*n^4))^(1/4)*log((b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x)
 + 2*b*log(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n*log(x
```

```
) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*
log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - 1
/2*(-1/(b^4*n^4))^(1/4)*log(-(b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x)
 + 2*b*log(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) - sqrt((cos(2*b*n*log(x
) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*
log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - 1
/2*I*(-1/(b^4*n^4))^(1/4)*log((I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log
(x) + 2*b*log(c) + 2*a) + I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n*
log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2
*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)
) + 1/2*I*(-1/(b^4*n^4))^(1/4)*log((-I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b
*n*log(x) + 2*b*log(c) + 2*a) - I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(
2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))
*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a
) + 1))
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx = \int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx$$

```
[In] integrate(1/x/cot(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(1/(x*sqrt(cot(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\cot(a+b\log(cx^n))}}\,dx = \int \frac{1}{x\sqrt{\cot(b\log(cx^n)+a)}}\,dx$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/(x*sqrt(cot(b*log(c*x^n) + a))), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 27.84 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.32

$$\int \frac{1}{x\sqrt{\cot\left(a+b\log\left(cx^n\right)\right)}}\,dx = \frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\,\sqrt{\cot\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)\,1\mathrm{i}}{b\,n} + \frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\,\sqrt{\cot\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)\,1\mathrm{i}}{b\,n}$$

```
[In] int(1/(x*cot(a + b*log(c*x^n))^(1/2)),x)
[Out] ((-1)^(1/4)*atan((-1)^(1/4)*cot(a + b*log(c*x^n))^(1/2))*1i)/(b*n) + ((-1)^
(1/4)*atanh((-1)^(1/4)*cot(a + b*log(c*x^n))^(1/2))*1i)/(b*n)
```

3.235 $\int \frac{1}{x \cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2345
Rubi [A] (verified) 2346
Mathematica [A] (verified) 2349
Maple [A] (verified) 2349
Fricas [C] (verification not implemented) 2350
Sympy [F] 2351
Maxima [F] 2351
Giac [F(-1)] 2351
Mupad [B] (verification not implemented) 2351

Optimal result

Integrand size = 19, antiderivative size = 199

$$\begin{aligned}\int \frac{1}{x \cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = &-\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\ &+\frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\ &+\frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} \\ &+\frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\ &-\frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}\end{aligned}$$

```
[Out] 1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/2*arctan(1+2^
(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+1/4*ln(1+cot(a+b*ln(c*x^n))-2^(
1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)-1/4*ln(1+cot(a+b*ln(c*x^n))+2^(1
/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)+2/b/n/cot(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.16 (sec) , antiderivative size = 199, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.474, Rules used = {3555, 3557, 335, 303, 1176, 631, 210, 1179, 642}

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} + \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} - \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}}$$

```
[In] Int[1/(x*Cot[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + 2/(b*n*Sqrt[Cot[a +
 b*Log[c*x^n]]]) + Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a + b*
Log[c*x^n]]]/(2*Sqrt[2]*b*n) - Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]
+ Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 303

```
Int[(x_)^2/((a_) + (b_.)*(x_)^4), x_Symbol] :> With[{r = Numerator[Rt[a/b,
2]], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*s), Int[(r + s*x^2)/(a + b*x^4
), x], x] - Dist[1/(2*s), Int[(r - s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a,
 b}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &
& AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3555

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(b*Tan[c + d*x]
)^(n + 1)/(b*d*(n + 1)), x] - Dist[1/b^2, Int[(b*Tan[c + d*x])^(n + 2), x],
 x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \frac{1}{\cot^{\frac{3}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\sqrt{\cot(a+bx)}\,dx,x,\log(cx^n)\right)}{n}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} + \frac{\text{Subst}\left(\int\frac{\sqrt{x}}{1+x^2}\,dx,x,\cot(a+b\log(cx^n))\right)}{bn}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} + \frac{2\text{Subst}\left(\int\frac{x^2}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} - \frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn} + \frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} + \frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2bn} + \frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$= \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} - \frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{2}{bn\sqrt{\cot(a+b\log(cx^n))}} + \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} - \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.18 (sec) , antiderivative size = 105, normalized size of antiderivative = 0.53

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

$$= \frac{2+\arctan\left(\sqrt[4]{-\cot^2(a+b\log(cx^n))}\right)\sqrt[4]{-\cot^2(a+b\log(cx^n))} - \operatorname{arctanh}\left(\sqrt[4]{-\cot^2(a+b\log(cx^n))}\right)}{bn\sqrt{\cot(a+b\log(cx^n))}}$$

```
[In] Integrate[1/(x*Cot[a + b*Log[c*x^n]]^(3/2)),x]
[Out] (2 + ArcTan[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c*x^n]]^2)^(1
/4) - ArcTanh[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c*x^n]]^2)^
(1/4))/(b*n*Sqrt[Cot[a + b*Log[c*x^n]]])
```

Maple [A] (verified)

Time = 0.98 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.70

method	result
derivativedivides	$\frac{\frac{2}{\sqrt{\cot(a+b\ln(cx^n))}}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(cx^n))-\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}{1+\cot(a+b\ln(cx^n))+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}\right)+2\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}\right)+2\arctan\left(-1+\sqrt{\cdots}\right.\right.}{4}}{nb}$
default	$\frac{\frac{2}{\sqrt{\cot(a+b\ln(cx^n))}}+\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(cx^n))-\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}{1+\cot(a+b\ln(cx^n))+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}}\right)+2\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\ln(cx^n))}\right)+2\arctan\left(-1+\sqrt{\cdots}\right.\right.}{4}}{nb}$

```
[In] int(1/x/cot(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
[Out] 1/n/b*(2/cot(a+b*ln(c*x^n))^(1/2)+1/4*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))-2^(
1/2)*cot(a+b*ln(c*x^n))^(1/2))/(1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x
```

```
^n))^(1/2)))+2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/
2)*cot(a+b*ln(c*x^n))^(1/2))))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.26 (sec) , antiderivative size = 756, normalized size of antiderivative = 3.80

$$\int \frac{1}{x\cot^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\,dx = \text{Too large to display}$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] -1/2*((b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n*
(-1/(b^4*n^4))^(1/4))*log((b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*
log(c) + 2*a) + b*n*(-1/(b^4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log
(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*
b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - (b*n*(-1/(b^
4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n*(-1/(b^4*n^4))^(1/
4))*log(-(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b
*n*(-1/(b^4*n^4))^(1/4) - sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/s
in(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/
(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) + (I*b*n*(-1/(b^4*n^4))^(1/4)*c
os(2*b*n*log(x) + 2*b*log(c) + 2*a) + I*b*n*(-1/(b^4*n^4))^(1/4))*log((I*b*
n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + I*b*n*(-1/(b^
4*n^4))^(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*l
og(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n
*log(x) + 2*b*log(c) + 2*a) + 1)) + (-I*b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*
log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b^4*n^4))^(1/4))*log((-I*b*n*(-1/(b
^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b^4*n^4))^
(1/4) + sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) +
2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x)
+ 2*b*log(c) + 2*a) + 1)) - 4*sqrt((cos(2*b*n*log(x) + 2*b*log(c) + 2*a) +
1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) + 2*b*log(c) + 2*
a))/(b*n*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n)
```

Sympy [F]

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/cot(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(1/(x*cot(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{x\cot(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(1/(x*cot(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\text{Timed out}$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 28.25 (sec) , antiderivative size = 79, normalized size of antiderivative = 0.40

$$\int \frac{1}{x\cot^{\frac{3}{2}}(a+b\log(cx^n))}\,dx=\frac{2}{b\,n\,\sqrt{\cot(a+b\,\ln(c\,x^n))}}+\frac{(-1)^{1/4}\,\mathrm{atan}\left((-1)^{1/4}\,\sqrt{\cot(a+b\,\ln(c\,x^n))}\right)}{b\,n}-\frac{(-1)^{1/4}\,\mathrm{atanh}\left((-1)^{1/4}\,\sqrt{\cot(a+b\,\ln(c\,x^n))}\right)}{b\,n}$$

```
[In] int(1/(x*cot(a + b*log(c*x^n))^(3/2)),x)
[Out] 2/(b*n*cot(a + b*log(c*x^n))^(1/2)) + ((-1)^(1/4)*atan((-1)^(1/4)*cot(a + b
*log(c*x^n))^(1/2)))/(b*n) - ((-1)^(1/4)*atanh((-1)^(1/4)*cot(a + b*log(c*x
^n))^(1/2)))/(b*n)
```

3.236 $\int \frac{1}{x \cot^{\frac{5}{2}}(a+b\log(cx^n))} dx$

Optimal result 2352
Rubi [A] (verified) 2353
Mathematica [A] (verified) 2356
Maple [A] (verified) 2356
Fricas [C] (verification not implemented) 2357
Sympy [F(-1)] 2358
Maxima [F] 2358
Giac [F(-1)] 2358
Mupad [B] (verification not implemented) 2358

Optimal result

Integrand size = 19, antiderivative size = 201

$$\begin{aligned}\int \frac{1}{x \cot^{\frac{5}{2}}(a+b\log(cx^n))} dx = & -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\ & + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} \\ & + \frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))} \\ & - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} \\ & + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}\end{aligned}$$

```
[Out] 2/3/b/n/cot(a+b*ln(c*x^n))^(3/2)+1/2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(
1/2))/b/n*2^(1/2)+1/2*arctan(1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2
)-1/4*ln(1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)
+1/4*ln(1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2))/b/n*2^(1/2)
```

Rubi [A] (verified)

Time = 0.17 (sec) , antiderivative size = 201, normalized size of antiderivative = 1.00, number of steps used = 13, number of rules used = 9, $\frac{\text{number of rules}}{\text{integrand size}} = 0.474$, Rules used = {3555, 3557, 335, 217, 1179, 642, 1176, 631, 210}

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{\sqrt{2}bn} + \frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))} - \frac{\log\left(\cot(a+b\log(cx^n))-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn} + \frac{\log\left(\cot(a+b\log(cx^n))+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+1\right)}{2\sqrt{2}bn}$$

```
[In] Int[1/(x*Cot[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] -(ArcTan[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n)) + ArcTan[1
 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]]]/(Sqrt[2]*b*n) + 2/(3*b*n*Cot[a + b*
Log[c*x^n]]^(3/2)) - Log[1 - Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]] + Cot[a +
b*Log[c*x^n]]]/(2*Sqrt[2]*b*n) + Log[1 + Sqrt[2]*Sqrt[Cot[a + b*Log[c*x^n]]
] + Cot[a + b*Log[c*x^n]]]/(2*Sqrt[2]*b*n)
```

Rule 210

```
Int[((a_) + (b_.)*(x_)^2)^(-1), x_Symbol] :> Simp[(-(Rt[-a, 2]*Rt[-b, 2])^(
-1))*ArcTan[Rt[-b, 2]*(x/Rt[-a, 2])], x] /; FreeQ[{a, b}, x] && PosQ[a/b] &
& (LtQ[a, 0] || LtQ[b, 0])
```

Rule 217

```
Int[((a_) + (b_.)*(x_)^4)^(-1), x_Symbol] :> With[{r = Numerator[Rt[a/b, 2]
], s = Denominator[Rt[a/b, 2]]}, Dist[1/(2*r), Int[(r - s*x^2)/(a + b*x^4),
 x], x] + Dist[1/(2*r), Int[(r + s*x^2)/(a + b*x^4), x], x]] /; FreeQ[{a, b
}, x] && (GtQ[a/b, 0] || (PosQ[a/b] && AtomQ[SplitProduct[SumBaseQ, a]] &&
AtomQ[SplitProduct[SumBaseQ, b]]))
```

Rule 335

```
Int[((c_.)*(x_))^(m_)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> With[{k =
 Denominator[m]}, Dist[k/c, Subst[Int[x^(k*(m + 1) - 1)*(a + b*(x^(k*n)/c^n
))^p, x], x, (c*x)^(1/k)], x]] /; FreeQ[{a, b, c, p}, x] && IGtQ[n, 0] && F
```

```
ractionQ[m] && IntBinomialQ[a, b, c, n, m, p, x]
```

Rule 631

```
Int[((a_) + (b_.)*(x_) + (c_.)*(x_)^2)^(-1), x_Symbol] :> With[{q = 1 - 4*S
implify[a*(c/b^2)]}, Dist[-2/b, Subst[Int[1/(q - x^2), x], x, 1 + 2*c*(x/b)
], x] /; RationalQ[q] && (EqQ[q^2, 1] ||  !RationalQ[b^2 - 4*a*c])] /; Free
Q[{a, b, c}, x] && NeQ[b^2 - 4*a*c, 0]
```

Rule 642

```
Int[((d_) + (e_.)*(x_))/((a_.) + (b_.)*(x_) + (c_.)*(x_)^2), x_Symbol] :> S
imp[d*(Log[RemoveContent[a + b*x + c*x^2, x]]/b), x] /; FreeQ[{a, b, c, d,
e}, x] && EqQ[2*c*d - b*e, 0]
```

Rule 1176

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
2*(d/e), 2]}, Dist[e/(2*c), Int[1/Simp[d/e + q*x + x^2, x], x], x] + Dist[e
/(2*c), Int[1/Simp[d/e - q*x + x^2, x], x], x]] /; FreeQ[{a, c, d, e}, x] &
& EqQ[c*d^2 - a*e^2, 0] && PosQ[d*e]
```

Rule 1179

```
Int[((d_) + (e_.)*(x_)^2)/((a_) + (c_.)*(x_)^4), x_Symbol] :> With[{q = Rt[
-2*(d/e), 2]}, Dist[e/(2*c*q), Int[(q - 2*x)/Simp[d/e + q*x - x^2, x], x],
x] + Dist[e/(2*c*q), Int[(q + 2*x)/Simp[d/e - q*x - x^2, x], x], x]] /; Fre
eQ[{a, c, d, e}, x] && EqQ[c*d^2 - a*e^2, 0] && NegQ[d*e]
```

Rule 3555

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Simp[(b*Tan[c + d*x]
)^(n + 1)/(b*d*(n + 1)), x] - Dist[1/b^2, Int[(b*Tan[c + d*x])^(n + 2), x],
 x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1]
```

Rule 3557

```
Int[((b_.)*tan[(c_.) + (d_.)*(x_)])^(n_), x_Symbol] :> Dist[b/d, Subst[Int[
x^n/(b^2 + x^2), x], x, b*Tan[c + d*x]], x] /; FreeQ[{b, c, d, n}, x] &&  !
IntegerQ[n]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \frac{1}{\cot^{\frac{5}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}-\frac{\text{Subst}\left(\int\frac{1}{\sqrt{\cot(a+bx)}}\,dx,x,\log(cx^n)\right)}{n}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}+\frac{\text{Subst}\left(\int\frac{1}{\sqrt{x}(1+x^2)}\,dx,x,\cot(a+b\log(cx^n))\right)}{bn}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}+\frac{2\text{Subst}\left(\int\frac{1}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}+\frac{\text{Subst}\left(\int\frac{1-x^2}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$
$$+\frac{\text{Subst}\left(\int\frac{1+x^2}{1+x^4}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{bn}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}+\frac{\text{Subst}\left(\int\frac{1}{1-\sqrt{2}x+x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2bn}$$
$$+\frac{\text{Subst}\left(\int\frac{1}{1+\sqrt{2}x+x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2bn}$$
$$-\frac{\text{Subst}\left(\int\frac{\sqrt{2}+2x}{-1-\sqrt{2}x-x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$
$$-\frac{\text{Subst}\left(\int\frac{\sqrt{2}-2x}{-1+\sqrt{2}x-x^2}\,dx,x,\sqrt{\cot(a+b\log(cx^n))}\right)}{2\sqrt{2}bn}$$

$$=\frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}$$
$$-\frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$
$$+\frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$
$$+\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$
$$-\frac{\text{Subst}\left(\int\frac{1}{-1-x^2}\,dx,x,1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn}$$

$$= -\frac{\arctan\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{\arctan\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}\right)}{\sqrt{2}bn} + \frac{2}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))} - \frac{\log\left(1-\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn} + \frac{\log\left(1+\sqrt{2}\sqrt{\cot(a+b\log(cx^n))}+\cot(a+b\log(cx^n))\right)}{2\sqrt{2}bn}$$

Mathematica [A] (verified)

Time = 0.28 (sec) , antiderivative size = 109, normalized size of antiderivative = 0.54

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = -\frac{-2+3\arctan\left(\sqrt[4]{-\cot^2(a+b\log(cx^n))}\right)(-\cot^2(a+b\log(cx^n)))^{3/4}+3\text{arctanh}\left(\sqrt[4]{-\cot^2(a+b\log\right.}{3bn\cot^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Integrate[1/(x*Cot[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] -1/3*(-2 + 3*ArcTan[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c*x^n
]]^2)^(3/4) + 3*ArcTanh[(-Cot[a + b*Log[c*x^n]]^2)^(1/4)]*(-Cot[a + b*Log[c
*x^n]]^2)^(3/4))/(b*n*Cot[a + b*Log[c*x^n]]^(3/2))
```

Maple [A] (verified)

Time = 1.03 (sec) , antiderivative size = 139, normalized size of antiderivative = 0.69

method	result
derivativedivides	$\frac{\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)\right)}{4}}{nb}$
default	$\frac{\frac{\sqrt{2}\left(\ln\left(\frac{1+\cot(a+b\ln(c\,x^n))+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}{1+\cot(a+b\ln(c\,x^n))-\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}}\right)+2\arctan\left(1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)+2\arctan\left(-1+\sqrt{2}\,\sqrt{\cot(a+b\ln(c\,x^n))}\right)\right)}{4}}{nb}$

```
[In] int(1/x/cot(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(1/4*2^(1/2)*(ln((1+cot(a+b*ln(c*x^n))+2^(1/2)*cot(a+b*ln(c*x^n))^(1/
2))/(1+cot(a+b*ln(c*x^n))-2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)))+2*arctan(1+2^(
```

```
1/2)*cot(a+b*ln(c*x^n))^(1/2))+2*arctan(-1+2^(1/2)*cot(a+b*ln(c*x^n))^(1/2)
))+2/3/cot(a+b*ln(c*x^n))^(3/2))
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 793, normalized size of antiderivative = 3.95

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Too large to display}$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] -1/6*(3*(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*
n*(-1/(b^4*n^4))^(1/4))*log((b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x)
+ 2*b*log(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n*log(x)
 + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*l
og(x) + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) - 3*
(b*n*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + b*n*(-1/(b
^4*n^4))^(1/4))*log(-(b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x) + 2*b*l
og(c) + 2*a) + b^3*n^3*(-1/(b^4*n^4))^(3/4) - sqrt((cos(2*b*n*log(x) + 2*b*
log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x) +
 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) + 3*(-I*b*n
*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - I*b*n*(-1/(b^4
*n^4))^(1/4))*log((I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x) + 2*b*lo
g(c) + 2*a) + I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n*log(x) + 2*b
*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x)
+ 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) + 3*(I*b*n
*(-1/(b^4*n^4))^(1/4)*cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + I*b*n*(-1/(b^4
*n^4))^(1/4))*log((-I*b^3*n^3*(-1/(b^4*n^4))^(3/4)*cos(2*b*n*log(x) + 2*b*l
og(c) + 2*a) - I*b^3*n^3*(-1/(b^4*n^4))^(3/4) + sqrt((cos(2*b*n*log(x) + 2*
b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) + 2*a))*sin(2*b*n*log(x)
 + 2*b*log(c) + 2*a))/(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)) + 4*sqrt(
(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) + 1)/sin(2*b*n*log(x) + 2*b*log(c) +
2*a))*(cos(2*b*n*log(x) + 2*b*log(c) + 2*a) - 1))/(b*n*cos(2*b*n*log(x) + 2
*b*log(c) + 2*a) + b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cot(a+b*ln(c*x**n))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\cot(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(1/(x*cot(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/cot(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [B] (verification not implemented)

Time = 28.88 (sec) , antiderivative size = 80, normalized size of antiderivative = 0.40

$$\int \frac{1}{x\cot^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2}{3\,b\,n\cot(a+b\,\ln(c\,x^n))^{3/2}} - \frac{(-1)^{1/4}\operatorname{atan}\left((-1)^{1/4}\sqrt{\cot(a+b\,\ln(c\,x^n))}\right)\,1\mathrm{i}}{b\,n} - \frac{(-1)^{1/4}\operatorname{atanh}\left((-1)^{1/4}\sqrt{\cot(a+b\,\ln(c\,x^n))}\right)\,1\mathrm{i}}{b\,n}$$

```
[In] int(1/(x*cot(a + b*log(c*x^n))^(5/2)),x)
[Out] 2/(3*b*n*cot(a + b*log(c*x^n))^(3/2)) - ((-1)^(1/4)*atan((-1)^(1/4)*cot(a +
 b*log(c*x^n))^(1/2))*1i)/(b*n) - ((-1)^(1/4)*atanh((-1)^(1/4)*cot(a + b*lo
g(c*x^n))^(1/2))*1i)/(b*n)
```

3.237 $\int x^2 \sec(a + b\log(cx^n)) \, dx$

Optimal result . . . 2359
Rubi [A] (verified) . . . 2359
Mathematica [A] (verified) . . . 2360
Maple [F] . . . 2361
Fricas [F] . . . 2361
Sympy [F] . . . 2361
Maxima [F] . . . 2361
Giac [F] . . . 2362
Mupad [F(-1)] . . . 2362

Optimal result

Integrand size = 15, antiderivative size = 87

$$\int x^2 \sec(a + b\log(cx^n)) \, dx = \frac{2e^{ia}x^3(cx^n)^{ib} \text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{3i}{bn}\right), \frac{3}{2}\left(1 - \frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{3 + ibn}$$

```
[Out] 2*exp(I*a)*x^3*(c*x^n)^(I*b)*hypergeom([1, 1/2-3/2*I/b/n],[3/2-3/2*I/b/n],-
exp(2*I*a)*(c*x^n)^(2*I*b))/(3+I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4605, 4601, 371}

$$\int x^2 \sec(a + b\log(cx^n)) \, dx = \frac{2e^{ia}x^3(cx^n)^{ib} \text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{3i}{bn}\right), \frac{3}{2}\left(1 - \frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{3 + ibn}$$

```
[In] Int[x^2*Sec[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x^3*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - (3*I)/(b*n))/2, (3*(
1 - I/(b*n)))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(3 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(2e^{ia}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{3}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\ &= \frac{2e^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{3i}{bn}\right),\frac{3}{2}\left(1-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{3+ibn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.79 (sec) , antiderivative size = 86, normalized size of antiderivative = 0.99

$$\int x^2\sec\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2ie^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{3i}{2bn},\frac{3}{2}-\frac{3i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{-3i+bn}$$

```
[In] Integrate[x^2*Sec[a + b*Log[c*x^n]],x]
```

```
[Out] ((-2*I)*E^(I*a)*x^3*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - ((3*I)/2)/(b*n
), 3/2 - ((3*I)/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/(-3*I + b*n)
```

Maple [F]

$$\int x^2 \sec(a + b\ln(c\,x^n))\,dx$$

```
[In] int(x^2*sec(a+b*ln(c*x^n)),x)
[Out] int(x^2*sec(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int x^2 \sec(a + b\log(cx^n))\,dx = \int x^2 \sec(b\log(cx^n) + a)\,dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(x^2*sec(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int x^2 \sec(a + b\log(cx^n))\,dx = \int x^2 \sec(a + b\log(cx^n))\,dx$$

```
[In] integrate(x**2*sec(a+b*ln(c*x**n)),x)
[Out] Integral(x**2*sec(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int x^2 \sec(a + b\log(cx^n))\,dx = \int x^2 \sec(b\log(cx^n) + a)\,dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(x^2*sec(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int x^2 \sec(a + b\log(cx^n)) \, dx = \int x^2 \sec(b\log(cx^n) + a) \, dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(x^2*sec(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \sec(a + b\log(cx^n)) \, dx = \int \frac{x^2}{\cos(a + b \ln(c x^n))} \, dx$$

```
[In] int(x^2/cos(a + b*log(c*x^n)),x)
[Out] int(x^2/cos(a + b*log(c*x^n)), x)
```

3.238 $\int x \sec(a + b \log(cx^n))\, dx$

Optimal result 2363
Rubi [A] (verified) 2363
Mathematica [A] (verified) 2364
Maple [F] 2365
Fricas [F] 2365
Sympy [F] 2365
Maxima [F] 2365
Giac [F] 2366
Mupad [F(-1)] 2366

Optimal result

Integrand size = 13, antiderivative size = 87

$$\int x \sec(a + b \log(cx^n))\, dx = \frac{2e^{ia} x^2 (cx^n)^{ib} \text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{2i}{bn}\right), \frac{1}{2}\left(3 - \frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{2 + ibn}$$

```
[Out] 2*exp(I*a)*x^2*(c*x^n)^(I*b)*hypergeom([1, 1/2-I/b/n],[3/2-I/b/n],-exp(2*I*
a)*(c*x^n)^(2*I*b))/(2+I*b*n)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.231$, Rules used = {4605, 4601, 371}

$$\int x \sec(a + b \log(cx^n))\, dx = \frac{2e^{ia} x^2 (cx^n)^{ib} \text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{2i}{bn}\right), \frac{1}{2}\left(3 - \frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{2 + ibn}$$

```
[In] Int[x*Sec[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x^2*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - (2*I)/(b*n))/2, (3 -
 (2*I)/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(2 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(2e^{ia}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{2}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\
&= \frac{2e^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{2i}{bn}\right),\frac{1}{2}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{2+ibn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.77 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.94

$$\int x\sec\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2ie^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{bn},\frac{3}{2}-\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)}{-2i+bn}$$

```
[In] Integrate[x*Sec[a + b*Log[c*x^n]],x]
[Out] ((-2*I)*E^(I*a)*x^2*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - I/(b*n), 3/2 -
 I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/(-2*I + b*n)
```

Maple [F]

$$\int x \sec \left(a + b \ln \left(c\, x^{n}\right)\right) dx$$

```
[In] int(x*sec(a+b*ln(c*x^n)),x)
[Out] int(x*sec(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int x \sec \left(a + b \log \left(cx^{n}\right)\right)\, dx = \int x \sec \left(b \log \left(cx^{n}\right) + a\right)\, dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(x*sec(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int x \sec \left(a + b \log \left(cx^{n}\right)\right)\, dx = \int x \sec \left(a + b \log \left(cx^{n}\right)\right) dx$$

```
[In] integrate(x*sec(a+b*ln(c*x**n)),x)
[Out] Integral(x*sec(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int x \sec \left(a + b \log \left(cx^{n}\right)\right)\, dx = \int x \sec \left(b \log \left(cx^{n}\right) + a\right)\, dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(x*sec(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int x\sec(a+b\log(cx^n))\,dx = \int x\sec(b\log(cx^n)+a)\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(x*sec(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sec(a+b\log(cx^n))\,dx = \int \frac{x}{\cos(a+b\,\ln(c\,x^n))}\,dx$$

```
[In] int(x/cos(a + b*log(c*x^n)),x)
[Out] int(x/cos(a + b*log(c*x^n)), x)
```

3.239 $\int \sec(a + b\log(cx^n))\,dx$

Optimal result . . . 2367
Rubi [A] (verified) . . . 2367
Mathematica [A] (verified) . . . 2368
Maple [F] . . . 2369
Fricas [F] . . . 2369
Sympy [F] . . . 2369
Maxima [F] . . . 2369
Giac [F] . . . 2370
Mupad [F(-1)] . . . 2370

Optimal result

Integrand size = 11, antiderivative size = 85

$$\int \sec(a + b\log(cx^n))\,dx = \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{i}{bn}\right), \frac{1}{2}\left(3 - \frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{1 + ibn}$$

```
[Out] 2*exp(I*a)*x*(c*x^n)^(I*b)*hypergeom([1, 1/2-1/2*I/b/n],[3/2-1/2*I/b/n],-ex
p(2*I*a)*(c*x^n)^(2*I*b))/(1+I*b*n)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.273, Rules used = {4599, 4601, 371}

$$\int \sec(a + b\log(cx^n))\,dx = \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{i}{bn}\right), \frac{1}{2}\left(3 - \frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{1 + ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - I/(b*n))/2, (3 - I/(b*
n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(2e^{ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{1}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\
&= \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+ibn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.63 (sec) , antiderivative size = 84, normalized size of antiderivative = 0.99

$$\int \sec\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2ie^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{2bn},\frac{3}{2}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{-i+bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]],x]
[Out] ((-2*I)*E^(I*a)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - (I/2)/(b*n), 3/2
 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/(-I + b*n)
```

Maple [F]

$$\int \sec \left(a+b \ln \left(c \,x^{n}\right)\right)d x$$

```
[In] int(sec(a+b*ln(c*x^n)),x)
[Out] int(sec(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int \sec \left(a+b\log \left(cx^n\right)\right)\,dx=\int \sec \left(b\log \left(cx^n\right)+a\right)\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int \sec \left(a+b\log \left(cx^n\right)\right)\,dx=\int \sec \left(a+b\log \left(cx^n\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n)),x)
[Out] Integral(sec(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int \sec \left(a+b\log \left(cx^n\right)\right)\,dx=\int \sec \left(b\log \left(cx^n\right)+a\right)\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int \sec (a+b\log (cx^n))\,dx=\int \sec (b\log (cx^n)+a)\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec (a+b\log (cx^n))\,dx=\int \frac{1}{\cos (a+b\,\ln (c\,x^n))}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n)),x)
[Out] int(1/cos(a + b*log(c*x^n)), x)
```

3.240 $\int \frac{\sec(a+b\log(cx^n))}{x}\,dx$

Optimal result 2371
Rubi [A] (verified) 2371
Mathematica [A] (verified) 2372
Maple [A] (verified) 2372
Fricas [B] (verification not implemented) 2372
Sympy [A] (verification not implemented) 2373
Maxima [A] (verification not implemented) 2373
Giac [F] 2373
Mupad [B] (verification not implemented) 2373

Optimal result

Integrand size = 15, antiderivative size = 19

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = \frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{bn}$$

```
[Out] arctanh(sin(a+b*ln(c*x^n)))/b/n
```

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}} = 0.067$, Rules used = {3855}

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = \frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]/x,x]
```

```
[Out] ArcTanh[Sin[a + b*Log[c*x^n]]]/(b*n)
```

Rule 3855

```
Int[csc[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-ArcTanh[Cos[c + d*x]]/d, x]
 /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \sec(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\ &= \frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{bn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.04 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx=\frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]/x,x]
[Out] ArcTanh[Sin[a + b*Log[c*x^n]]]/(b*n)
```

Maple [A] (verified)

Time = 0.47 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.68

method	result
derivativedivides	$\frac{\ln(\sec(a+b\ln(c\,x^n))+\tan(a+b\ln(c\,x^n)))}{nb}$
default	$\frac{\ln(\sec(a+b\ln(c\,x^n))+\tan(a+b\ln(c\,x^n)))}{nb}$
parallelrisch	$\frac{-\ln\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)-1\right)+\ln\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)+1\right)}{nb}$
risch	$\frac{\ln\left(c^{ib}(x^n)^{ib}\mathrm{e}^{-\frac{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{2}}\mathrm{e}^{\frac{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{\frac{b\pi\,\mathrm{csgn}(ic\,x^n)^3}{2}}\mathrm{e}^{-\frac{b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{ia}+i\right)}{bn}$

```
[In] int(sec(a+b*ln(c*x^n))/x,x,method=_RETURNVERBOSE)
[Out] 1/n/b*ln(sec(a+b*ln(c*x^n))+tan(a+b*ln(c*x^n)))
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 43 vs. 2(19) = 38.

Time = 0.25 (sec) , antiderivative size = 43, normalized size of antiderivative = 2.26

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = \frac{\log(\sin(bn\log(x)+b\log(c)+a)+1)-\log(-\sin(bn\log(x)+b\log(c)+a)+1)}{2\,bn}$$

```
[In] integrate(sec(a+b*log(c*x^n))/x,x, algorithm="fricas")
[Out] 1/2*(log(sin(b*n*log(x) + b*log(c) + a) + 1) - log(-sin(b*n*log(x) + b*log(
c) + a) + 1))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 0.99 (sec) , antiderivative size = 51, normalized size of antiderivative = 2.68

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = -\begin{cases} -\log(x)\sec(a) & \text{for } b=0 \\ -\log(x)\sec(a+b\log(c)) & \text{for } n=0 \\ -\frac{\log(\tan(a+b\log(cx^n))+\sec(a+b\log(cx^n)))}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(sec(a+b*ln(c*x**n))/x,x)
[Out] -Piecewise((-log(x)*sec(a), Eq(b, 0)), (-log(x)*sec(a + b*log(c)), Eq(n, 0)
), (-log(tan(a + b*log(c*x**n)) + sec(a + b*log(c*x**n)))/(b*n), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.22 (sec) , antiderivative size = 31, normalized size of antiderivative = 1.63

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = \frac{\log(\sec(b\log(cx^n)+a)+\tan(b\log(cx^n)+a))}{bn}$$

```
[In] integrate(sec(a+b*log(c*x^n))/x,x, algorithm="maxima")
[Out] log(sec(b*log(c*x^n) + a) + tan(b*log(c*x^n) + a))/(b*n)
```

Giac [F]

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = \int \frac{\sec(b\log(cx^n)+a)}{x}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))/x,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)/x, x)
```

Mupad [B] (verification not implemented)

Time = 29.58 (sec) , antiderivative size = 66, normalized size of antiderivative = 3.47

$$\int \frac{\sec(a+b\log(cx^n))}{x}\,dx = -\frac{\ln\left(\frac{2\,e^{a\,1i}\,(c\,x^n)^{b\,1i}-2i}{x}\right)}{b\,n} + \frac{\ln\left(\frac{2\,e^{a\,1i}\,(c\,x^n)^{b\,1i}+2i}{x}\right)}{b\,n}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))),x)
[Out] log((2*exp(a*1i)*(c*x^n)^(b*1i) + 2i)/x)/(b*n) - log((2*exp(a*1i)*(c*x^n)^(
b*1i) - 2i)/x)/(b*n)
```

3.241 $\int \frac{\sec(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 2374
Rubi [A] (verified) 2374
Mathematica [A] (verified) 2375
Maple [F] 2376
Fricas [F] 2376
Sympy [F] 2376
Maxima [F] 2376
Giac [F] 2377
Mupad [F(-1)] 2377

Optimal result

Integrand size = 15, antiderivative size = 87

$$\int \frac{\sec (a+b\log (cx^n))}{x^2}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(1-ibn)x}$$

```
[Out] -2*exp(I*a)*(c*x^n)^(I*b)*hypergeom([1, 1/2+1/2*I/b/n],[3/2+1/2*I/b/n],-exp
(2*I*a)*(c*x^n)^(2*I*b))/(1-I*b*n)/x
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4605, 4601, 371}

$$\int \frac{\sec (a+b\log (cx^n))}{x^2}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x(1-ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 + I/(b*n))/2, (3 + I/(b*n
))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - I*b*n)*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{nx}\\
&= \frac{\left(2e^{ia}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+ib-\frac{1}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{nx}\\
&= -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(1-ibn)x}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.54 (sec) , antiderivative size = 85, normalized size of antiderivative = 0.98

$$
\begin{aligned}
&\int \frac{\sec(a+b\log(cx^n))}{x^2}\,dx\\
&= \frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}+\frac{i}{2bn},\frac{3}{2}+\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{(-1+ibn)x}
\end{aligned}
$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]/x^2,x]
[Out] (2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + (I/2)/(b*n), 3/2 + (I/2
)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/((-1 + I*b*n)*x)
```

Maple [F]

$$\int \frac{\sec (a+b\ln (c\,x^{n}))}{x^{2}}dx$$

[In] int(sec(a+b*ln(c*x^n))/x^2,x)

[Out] int(sec(a+b*ln(c*x^n))/x^2,x)

Fricas [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^2}\,dx = \int \frac{\sec (b\log (cx^{n}) + a)}{x^{2}}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))/x^2,x, algorithm="fricas")

[Out] integral(sec(b*log(c*x^n) + a)/x^2, x)

Sympy [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^2}\,dx = \int \frac{\sec (a+b\log (cx^{n}))}{x^{2}}\,dx$$

[In] integrate(sec(a+b*ln(c*x**n))/x**2,x)

[Out] Integral(sec(a + b*log(c*x**n))/x**2, x)

Maxima [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^2}\,dx = \int \frac{\sec (b\log (cx^{n}) + a)}{x^{2}}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))/x^2,x, algorithm="maxima")

[Out] integrate(sec(b*log(c*x^n) + a)/x^2, x)

Giac [F]

$$\int \frac{\sec(a + b\log(cx^n))}{x^2}\,dx = \int \frac{\sec(b\log(cx^n) + a)}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))/x^2,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec(a + b\log(cx^n))}{x^2}\,dx = \int \frac{1}{x^2 \cos(a + b \ln(c\,x^n))}\,dx$$

```
[In] int(1/(x^2*cos(a + b*log(c*x^n))),x)
[Out] int(1/(x^2*cos(a + b*log(c*x^n))), x)
```

3.242 $\int \frac{\sec(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 2378
Rubi [A] (verified) 2378
Mathematica [A] (verified) 2379
Maple [F] 2380
Fricas [F] 2380
Sympy [F] 2380
Maxima [F] 2380
Giac [F] 2381
Mupad [F(-1)] 2381

Optimal result

Integrand size = 15, antiderivative size = 87

$$\int \frac{\sec(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)x^2}$$

```
[Out] -2*exp(I*a)*(c*x^n)^(I*b)*hypergeom([1, 1/2+I/b/n],[3/2+I/b/n],-exp(2*I*a)*
(c*x^n)^(2*I*b))/(2-I*b*n)/x^2
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4605, 4601, 371}

$$\int \frac{\sec(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x^2(2-ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]/x^3,x]
```

```
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 + (2*I)/(b*n))/2, (3 + (2
*I)/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - I*b*n)*x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{nx^2}\\ &= \frac{\left(2e^{ia}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib-\frac{2}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{nx^2}\\ &= -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)x^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.54 (sec) , antiderivative size = 81, normalized size of antiderivative = 0.93

$$\int \frac{\sec\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}+\frac{i}{bn},\frac{3}{2}+\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)}{(-2+ibn)x^2}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]/x^3,x]
[Out] (2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + I/(b*n), 3/2 + I/(b*n),
 -E^((2*I)*(a + b*Log[c*x^n]))])/((-2 + I*b*n)*x^2)
```

Maple [F]

$$\int \frac{\sec (a+b\ln (c\,x^n))}{x^3}dx$$

```
[In] int(sec(a+b*ln(c*x^n))/x^3,x)
[Out] int(sec(a+b*ln(c*x^n))/x^3,x)
```

Fricas [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^3}\,dx=\int \frac{\sec (b\log (cx^n)+a)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))/x^3,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)/x^3, x)
```

Sympy [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^3}\,dx=\int \frac{\sec (a+b\log (cx^n))}{x^3}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))/x**3,x)
[Out] Integral(sec(a + b*log(c*x**n))/x**3, x)
```

Maxima [F]

$$\int \frac{\sec (a+b\log (cx^n))}{x^3}\,dx=\int \frac{\sec (b\log (cx^n)+a)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))/x^3,x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)/x^3, x)
```

Giac [F]

$$\int \frac{\sec(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sec(b\log(cx^n)+a)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))/x^3,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec(a+b\log(cx^n))}{x^3}\,dx = \int \frac{1}{x^3\cos(a+b\ln(c\,x^n))}\,dx$$

```
[In] int(1/(x^3*cos(a + b*log(c*x^n))),x)
[Out] int(1/(x^3*cos(a + b*log(c*x^n))), x)
```

3.243 $\int x^2 \sec^2(a+b\log(cx^n))\,dx$

Optimal result . . . 2382
Rubi [A] (verified) . . . 2382
Mathematica [A] (verified) . . . 2383
Maple [F] . . . 2384
Fricas [F] . . . 2384
Sympy [F] . . . 2384
Maxima [F] . . . 2384
Giac [F] . . . 2385
Mupad [F(-1)] . . . 2385

Optimal result

Integrand size = 17, antiderivative size = 87

$$\int x^2 \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x^3(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{3i}{bn}\right),\frac{1}{2}\left(4-\frac{3i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{3+2ibn}$$

```
[Out] 4*exp(2*I*a)*x^3*(c*x^n)^(2*I*b)*hypergeom([2, 1-3/2*I/b/n],[2-3/2*I/b/n],-
exp(2*I*a)*(c*x^n)^(2*I*b))/(3+2*I*b*n)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.176$, Rules used = {4605, 4601, 371}

$$\int x^2 \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x^3(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{3i}{bn}\right),\frac{1}{2}\left(4-\frac{3i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{3+2ibn}$$

```
[In] Int[x^2*Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (4*E^((2*I)*a)*x^3*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, (2 - (3*I)/(b*n))
/2, (4 - (3*I)/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(3 + (2*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\sec^2(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(4e^{2ia}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+2ib+\frac{3}{n}}}{(1+e^{2ia}x^{2ib})^2}\,dx,x,cx^n\right)}{n}\\ &= \frac{4e^{2ia}x^3(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{3i}{bn}\right),\frac{1}{2}\left(4-\frac{3i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{3+2ibn}\end{aligned}$$

Mathematica [A] (verified)

Time = 4.22 (sec) , antiderivative size = 160, normalized size of antiderivative = 1.84

$$\int x^2\sec^2(a+b\log(cx^n))\,dx = \frac{x^3\left(3e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{3i}{2bn},2-\frac{3i}{2bn},-e^{2i(a+b\log(cx^n))}\right)+(-3i+2bn)\left(-i\,\text{Hypergeom}\right.\right.}{bn(-3i+2bn)}$$

```
[In] Integrate[x^2*Sec[a + b*Log[c*x^n]]^2,x]
[Out] (x^3*(3*E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - ((3*I)/2)/(b
*n), 2 - ((3*I)/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + (-3*I + 2*b*n)*(
(-I)*Hypergeometric2F1[1, ((-3*I)/2)/(b*n), 1 - ((3*I)/2)/(b*n), -E^((2*I)*
(a + b*Log[c*x^n]))] + Tan[a + b*Log[c*x^n]])))/(b*n*(-3*I + 2*b*n))
```

Maple [F]

$$\int x^2 \sec(a + b\ln(c\,x^n))^2 dx$$

```
[In] int(x^2*sec(a+b*ln(c*x^n))^2,x)
```

```
[Out] int(x^2*sec(a+b*ln(c*x^n))^2,x)
```

Fricas [F]

$$\int x^2 \sec^2(a + b\log(cx^n)) \, dx = \int x^2 \sec(b\log(cx^n) + a)^2 \, dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n))^2,x, algorithm="fricas")
```

```
[Out] integral(x^2*sec(b*log(c*x^n) + a)^2, x)
```

Sympy [F]

$$\int x^2 \sec^2(a + b\log(cx^n)) \, dx = \int x^2 \sec^2(a + b\log(cx^n)) \, dx$$

```
[In] integrate(x**2*sec(a+b*ln(c*x**n))**2,x)
```

```
[Out] Integral(x**2*sec(a + b*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x^2 \sec^2(a + b\log(cx^n)) \, dx = \int x^2 \sec(b\log(cx^n) + a)^2 \, dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n))^2,x, algorithm="maxima")
```

```
[Out] 2*(x^3*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x^3*cos(2*b*log(c))*sin(2*
b*log(x^n) + 2*a) - 3*(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) -
2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2
+ b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c
))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2)*inte
grate((x^2*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x^2*cos(2*b*log(c))*si
n(2*b*log(x^n) + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) -
 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2
 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(
```

```
c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x)
)/(2*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b
*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*
b*log(x^n) + 2*a)^2 + b*n)
```

Giac [F]

$$\int x^2 \sec^2(a+b\log(cx^n))\,dx = \int x^2 \sec\left(b\log(cx^n)+a\right)^2\,dx$$

```
[In] integrate(x^2*sec(a+b*log(c*x^n))^2,x, algorithm="giac")
[Out] integrate(x^2*sec(b*log(c*x^n) + a)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \sec^2(a+b\log(cx^n))\,dx = \int \frac{x^2}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}\,dx$$

```
[In] int(x^2/cos(a + b*log(c*x^n))^2,x)
[Out] int(x^2/cos(a + b*log(c*x^n))^2, x)
```

3.244 $\int x \sec^2(a + b\log(cx^n))\, dx$

Optimal result 2386
Rubi [A] (verified) 2386
Mathematica [A] (verified) 2387
Maple [F] 2388
Fricas [F] 2388
Sympy [F] 2388
Maxima [F] 2388
Giac [F] 2389
Mupad [F(-1)] 2389

Optimal result

Integrand size = 15, antiderivative size = 79

$$\int x \sec^2(a + b\log(cx^n))\, dx = \frac{2e^{2ia}x^2(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2, 1 - \frac{i}{bn}, 2 - \frac{i}{bn}, -e^{2ia}(cx^n)^{2ib}\right)}{1 + ibn}$$

```
[Out] 2*exp(2*I*a)*x^2*(c*x^n)^(2*I*b)*hypergeom([2, 1-I/b/n],[2-I/b/n],-exp(2*I*
a)*(c*x^n)^(2*I*b))/(1+I*b*n)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 79, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4605, 4601, 371}

$$\int x \sec^2(a + b\log(cx^n))\, dx = \frac{2e^{2ia}x^2(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2, 1 - \frac{i}{bn}, 2 - \frac{i}{bn}, -e^{2ia}(cx^n)^{2ib}\right)}{1 + ibn}$$

```
[In] Int[x*Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (2*E^((2*I)*a)*x^2*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, 1 - I/(b*n), 2 -
I/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sec^2(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(4e^{2ia}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+2ib+\frac{2}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^2}\,dx,x,cx^n\right)}{n}\\ &= \frac{2e^{2ia}x^2(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,1-\frac{i}{bn},2-\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+ibn}\end{aligned}$$

Mathematica [A] (verified)

Time = 4.05 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.89

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$= \frac{x^2\left(e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bn},2-\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)+(-i+bn)\left(-i\,\text{Hypergeometric2}\right.\right.}{bn(-i+bn)}$$

```
[In] Integrate[x*Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (x^2*(E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - I/(b*n), 2 - I
/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + (-I + b*n)*((-I)*Hypergeometric2F1
[1, (-I)/(b*n), 1 - I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Tan[a + b*Log
[c*x^n]])))/(b*n*(-I + b*n))
```

Maple [F]

$$\int x\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{2}dx$$

```
[In] int(x*sec(a+b*ln(c*x^n))^2,x)
[Out] int(x*sec(a+b*ln(c*x^n))^2,x)
```

Fricas [F]

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] integral(x*sec(b*log(c*x^n) + a)^2, x)
```

Sympy [F]

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec^2\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(x*sec(a+b*ln(c*x**n))**2,x)
[Out] Integral(x*sec(a + b*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^2,x, algorithm="maxima")
[Out] 2*(x^2*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x^2*cos(2*b*log(c))*sin(2*
b*log(x^n) + 2*a) - 2*(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) -
2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2
+ b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c
))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2)*inte
grate((x*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x*cos(2*b*log(c))*sin(2*
b*log(x^n) + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b
^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b
^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^
```

```
2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x))/(2
*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin
(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*sin(2*b*log(c))*sin(2*b
*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*lo
g(x^n) + 2*a)^2 + b*n)
```

Giac [F]

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^2,x, algorithm="giac")
[Out] integrate(x*sec(b*log(c*x^n) + a)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sec^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int\frac{x}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}\,dx$$

```
[In] int(x/cos(a + b*log(c*x^n))^2,x)
[Out] int(x/cos(a + b*log(c*x^n))^2, x)
```

3.245 $\int \sec^2(a+b\log(cx^n))\,dx$

Optimal result . . . 2390
Rubi [A] (verified) . . . 2390
Mathematica [A] (verified) . . . 2391
Maple [F] . . . 2392
Fricas [F] . . . 2392
Sympy [F] . . . 2392
Maxima [F] . . . 2392
Giac [F] . . . 2393
Mupad [F(-1)] . . . 2393

Optimal result

Integrand size = 13, antiderivative size = 85

$$\int \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}$$

```
[Out] 4*exp(2*I*a)*x*(c*x^n)^(2*I*b)*hypergeom([2, 1-1/2*I/b/n],[2-1/2*I/b/n],-ex
p(2*I*a)*(c*x^n)^(2*I*b))/(1+2*I*b*n)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4599, 4601, 371}

$$\int \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (4*E^((2*I)*a)*x*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, (2 - I/(b*n))/2, (4
 - I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + (2*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^2(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(4e^{2ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+2ib+\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^2}\,dx,x,cx^n\right)}{n}\\ &= \frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}\end{aligned}$$

Mathematica [A] (verified)

Time = 4.81 (sec) , antiderivative size = 147, normalized size of antiderivative = 1.73

$$\int \sec^2(a+b\log(cx^n))\,dx = \frac{x\left(\frac{e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bn},2-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)}{-i+2bn}-i\,\text{Hypergeometric2F1}\left(1,-\frac{i}{2bn},1-\frac{i}{2bn},-e^{2i(a+\right.\right.}{bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (x*((E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - (I/2)/(b*n), 2
- (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))])/(-I + 2*b*n) - I*Hypergeomet
ric2F1[1, (-1/2*I)/(b*n), 1 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] +
 Tan[a + b*Log[c*x^n]]))/(b*n)
```

Maple [F]

$$\int \sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{2}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^2,x)
[Out] int(sec(a+b*ln(c*x^n))^2,x)
```

Fricas [F]

$$\int \sec^{2}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^2, x)
```

Sympy [F]

$$\int \sec^{2}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec^{2}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**2,x)
[Out] Integral(sec(a + b*log(c*x**n))**2, x)
```

Maxima [F]

$$\int \sec^{2}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2,x, algorithm="maxima")
[Out] 2*(x*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x*cos(2*b*log(c))*sin(2*b*lo
g(x^n) + 2*a) - (2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*
n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*
sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 +
 b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2)*integrate(
(cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^n)
 + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin
(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b
*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*si
```

```
n(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x))/(2*b*n*cos(2
*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c
))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*sin(2*b*log(c))*sin(2*b*log(x^n)
+ 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2
*a)^2 + b*n)
```

Giac [F]

$$\int \sec^2(a+b\log(cx^n))\,dx=\int \sec(b\log(cx^n)+a)^2\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^2(a+b\log(cx^n))\,dx=\int \frac{1}{\cos(a+b\,\ln(c\,x^n))^2}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^2,x)
[Out] int(1/cos(a + b*log(c*x^n))^2, x)
```

3.246 $\int \frac{\sec^2(a+b\log(cx^n))}{x} dx$

Optimal result 2394
Rubi [A] (verified) 2394
Mathematica [A] (verified) 2395
Maple [A] (verified) 2395
Fricas [A] (verification not implemented) 2396
Sympy [F] 2396
Maxima [B] (verification not implemented) 2396
Giac [F] 2397
Mupad [B] (verification not implemented) 2397

Optimal result

Integrand size = 17, antiderivative size = 18

$$\int \frac{\sec^2(a+b\log(cx^n))}{x} dx = \frac{\tan(a+b\log(cx^n))}{bn}$$

```
[Out] tan(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3852, 8}

$$\int \frac{\sec^2(a+b\log(cx^n))}{x} dx = \frac{\tan(a+b\log(cx^n))}{bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^2/x,x]
```

```
[Out] Tan[a + b*Log[c*x^n]]/(b*n)
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3852

```
Int[csc[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
ndIntegrand[(1 + x^2)^(n/2 - 1), x], x], x, Cot[c + d*x]], x] /; FreeQ[{c,
d}, x] && IGtQ[n/2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \sec^2(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\ &= -\frac{\text{Subst}\left(\int 1\,dx, x, -\tan(a+b\log(cx^n))\right)}{bn}\\ &= \frac{\tan(a+b\log(cx^n))}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.09 (sec) , antiderivative size = 18, normalized size of antiderivative = 1.00

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx = \frac{\tan(a+b\log(cx^n))}{bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^2/x,x]
[Out] Tan[a + b*Log[c*x^n]]/(b*n)
```

Maple [A] (verified)

Time = 1.90 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.06

method	result
derivativedivides	$\frac{\tan(a+b\ln(c\,x^n))}{bn}$
default	$\frac{\tan(a+b\ln(c\,x^n))}{bn}$
parallelrisch	$-\frac{2\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)}{bn\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^2-1\right)}$
risch	$\frac{2i}{bn\left((x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}\mathrm{e}^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}\mathrm{e}^{2ia}+1\right)}$

```
[In] int(sec(a+b*ln(c*x^n))^2/x,x,method=_RETURNVERBOSE)
[Out] tan(a+b*ln(c*x^n))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 33, normalized size of antiderivative = 1.83

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx = \frac{\sin(bn\log(x)+b\log(c)+a)}{bn\cos(bn\log(x)+b\log(c)+a)}$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x,x, algorithm="fricas")
[Out] sin(b*n*log(x) + b*log(c) + a)/(b*n*cos(b*n*log(x) + b*log(c) + a))
```

Sympy [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx = \int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**2/x,x)
[Out] Integral(sec(a + b*log(c*x**n))**2/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 165 vs. 2(18) = 36.

Time = 0.22 (sec) , antiderivative size = 165, normalized size of antiderivative = 9.17

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{2(\cos(2b\log(x^n)+2a)\sin(2b\log}{2bn\cos(2b\log(c))\cos(2b\log(x^n)+2a)+\left(b\cos(2b\log(c))^2+b\sin(2b\log(c))^2\right)n\cos(2b\log(x^n)+2a}$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x,x, algorithm="maxima")
[Out] 2*(cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^
n) + 2*a))/(2*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(
c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*sin(2*b*lo
g(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)
*n*sin(2*b*log(x^n) + 2*a)^2 + b*n)
```

Giac [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx=\int \frac{\sec(b\log(cx^n)+a)^2}{x}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^2/x, x)
```

Mupad [B] (verification not implemented)

Time = 29.01 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.61

$$\int \frac{\sec^2(a+b\log(cx^n))}{x}\,dx=\frac{2\mathrm{i}}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}+1\right)}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))^2),x)
[Out] 2i/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1))
```

3.247 $\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx$

Optimal result . . . 2398
Rubi [A] (verified) . . . 2398
Mathematica [A] (verified) . . . 2399
Maple [F] . . . 2400
Fricas [F] . . . 2400
Sympy [F] . . . 2400
Maxima [F] . . . 2400
Giac [F] . . . 2401
Mupad [F(-1)] . . . 2401

Optimal result

Integrand size = 17, antiderivative size = 87

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{4e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2+\frac{i}{bn}\right),\frac{1}{2}\left(4+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(1-2ibn)x}$$

```
[Out] -4*exp(2*I*a)*(c*x^n)^(2*I*b)*hypergeom([2, 1+1/2*I/b/n],[2+1/2*I/b/n],-exp
(2*I*a)*(c*x^n)^(2*I*b))/(1-2*I*b*n)/x
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.176$, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx = -\frac{4e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2+\frac{i}{bn}\right),\frac{1}{2}\left(4+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x(1-2ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^2/x^2,x]
```

```
[Out] (-4*E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, (2 + I/(b*n))/2, (4
+ I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - (2*I)*b*n)*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\Big(\int x^{-1-\frac{1}{n}}\sec^2(a+b\log(x))\,dx, x, cx^n\Big)}{nx} \\
&= \frac{\Big(4e^{2ia}(cx^n)^{\frac{1}{n}}\Big)\,\text{Subst}\Big(\int \frac{x^{-1+2ib-\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^2}\,dx, x, cx^n\Big)}{nx} \\
&= -\frac{4e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2, \frac{1}{2}\left(2+\frac{i}{bn}\right), \frac{1}{2}\left(4+\frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(1-2ibn)x}
\end{aligned}$$

Mathematica [A] (verified)

Time = 2.84 (sec) , antiderivative size = 160, normalized size of antiderivative = 1.84

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx = \frac{-e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1, 1+\frac{i}{2bn}, 2+\frac{i}{2bn}, -e^{2i(a+b\log(cx^n))}\right)+(1-2ibn)\,(\text{Hypergeometric2F1}}{bn(i+2bn)x}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^2/x^2,x]
```

```
[Out] (-(E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 + (I/2)/(b*n), 2 +
(I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))]) + (1 - (2*I)*b*n)*(Hypergeomet
ric2F1[1, (I/2)/(b*n), 1 + (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + I*
Tan[a + b*Log[c*x^n]]))/(b*n*(I + 2*b*n)*x)
```

Maple [F]

$$\int \frac{\sec \left(a+b \ln \left(c \,x^{n}\right)\right)^{2}}{x^{2}}d x$$

```
[In] int(sec(a+b*ln(c*x^n))^2/x^2,x)
[Out] int(sec(a+b*ln(c*x^n))^2/x^2,x)
```

Fricas [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^2}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^2,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^2/x^2, x)
```

Sympy [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**2/x**2,x)
[Out] Integral(sec(a + b*log(c*x**n))**2/x**2, x)
```

Maxima [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^2}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^2,x, algorithm="maxima")
[Out] 2*((2*b^2*n^2*x*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x*sin(2
*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*l
og(c))^2)*n^2*x*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*si
n(2*b*log(c))^2)*n^2*x*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x)*integrate((co
s(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^n) +
2*a))/(2*b^2*n^2*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x^
2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*si
n(2*b*log(c))^2)*n^2*x^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2
```

```
 + b^2*sin(2*b*log(c))^2)*n^2*x^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x^2),
 x) + cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log
(x^n) + 2*a))/(2*b*n*x*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos(2*b
*log(c))^2 + b*sin(2*b*log(c))^2)*n*x*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*x*s
in(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*l
og(c))^2)*n*x*sin(2*b*log(x^n) + 2*a)^2 + b*n*x)
```

Giac [F]

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\sec(b\log(cx^n)+a)^2}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^2,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^2/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^2}\,dx=\int \frac{1}{x^2\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}\,dx$$

```
[In] int(1/(x^2*cos(a + b*log(c*x^n))^2),x)
[Out] int(1/(x^2*cos(a + b*log(c*x^n))^2), x)
```

3.248 $\int \frac{\sec^2(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 2402
Rubi [A] (verified) 2402
Mathematica [A] (verified) 2403
Maple [F] 2404
Fricas [F] 2404
Sympy [F] 2404
Maxima [F] 2404
Giac [F] 2405
Mupad [F(-1)] 2405

Optimal result

Integrand size = 17, antiderivative size = 79

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,1+\frac{i}{bn},2+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{(1-ibn)x^2}$$

```
[Out] -2*exp(2*I*a)*(c*x^n)^(2*I*b)*hypergeom([2, 1+I/b/n],[2+I/b/n],-exp(2*I*a)*
(c*x^n)^(2*I*b))/(1-I*b*n)/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 79, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^2(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,1+\frac{i}{bn},2+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{x^2(1-ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^2/x^3,x]
```

```
[Out] (-2*E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, 1 + I/(b*n), 2 + I/(
b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - I*b*n)*x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sec^2(a+b\log(x))\,dx,x,cx^n\right)}{nx^2}\\
&= \frac{\left(4e^{2ia}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1+2ib-\frac{2}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^2}\,dx,x,cx^n\right)}{nx^2}\\
&= -\frac{2e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,1+\frac{i}{bn},2+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{(1-ibn)x^2}
\end{aligned}$$

Mathematica [A] (verified)

Time = 2.81 (sec) , antiderivative size = 150, normalized size of antiderivative = 1.90

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \frac{-e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bn},2+\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)+(i+bn)\left(-i\,\text{Hypergeometric2F1}\right.}{bn(i+bn)x^2}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^2/x^3,x]
```

```
[Out] (-(E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 + I/(b*n), 2 + I/(b
*n), -E^((2*I)*(a + b*Log[c*x^n]))]) + (I + b*n)*((-I)*Hypergeometric2F1[1,
 I/(b*n), 1 + I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Tan[a + b*Log[c*x^n
]]))/(b*n*(I + b*n)*x^2)
```

Maple [F]

$$\int \frac{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{2}}{x^{3}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^2/x^3,x)
[Out] int(sec(a+b*ln(c*x^n))^2/x^3,x)
```

Fricas [F]

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^2}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^3,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^2/x^3, x)
```

Sympy [F]

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**2/x**3,x)
[Out] Integral(sec(a + b*log(c*x**n))**2/x**3, x)
```

Maxima [F]

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^2}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^3,x, algorithm="maxima")
[Out] 2*(2*(2*b^2*n^2*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x^2
*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin
(2*b*log(c))^2)*n^2*x^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2
+ b^2*sin(2*b*log(c))^2)*n^2*x^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x^2)*i
ntegrate((cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b
*log(x^n) + 2*a))/(2*b^2*n^2*x^3*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) -
2*b^2*n^2*x^3*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c)
)^2 + b^2*sin(2*b*log(c))^2)*n^2*x^3*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2
```

```
*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^3*sin(2*b*log(x^n) + 2*a)^2 + b
^2*n^2*x^3), x) + cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))
*sin(2*b*log(x^n) + 2*a))/(2*b*n*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a
) + (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x^2*cos(2*b*log(x^n) + 2*
a)^2 - 2*b*n*x^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c
))^2 + b*sin(2*b*log(c))^2)*n*x^2*sin(2*b*log(x^n) + 2*a)^2 + b*n*x^2)
```

Giac [F]

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^2}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^2/x^3,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^2/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^2\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{1}{x^3\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}\,dx$$

```
[In] int(1/(x^3*cos(a + b*log(c*x^n))^2),x)
[Out] int(1/(x^3*cos(a + b*log(c*x^n))^2), x)
```

3.249 $\int x \sec^3(a + b \log(cx^n)) \, dx$

Optimal result 2406
Rubi [A] (verified) 2406
Mathematica [A] (verified) 2407
Maple [F] 2408
Fricas [F] 2408
Sympy [F] 2408
Maxima [F] 2408
Giac [F] 2411
Mupad [F(-1)] 2412

Optimal result

Integrand size = 15, antiderivative size = 87

$$\int x \sec^3(a + b \log(cx^n)) \, dx = \frac{8e^{3ia}x^2(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3, \frac{1}{2}\left(3 - \frac{2i}{bn}\right), \frac{1}{2}\left(5 - \frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{2 + 3ibn}$$

```
[Out] 8*exp(3*I*a)*x^2*(c*x^n)^(3*I*b)*hypergeom([3, 3/2-I/b/n],[5/2-I/b/n],-exp(
2*I*a)*(c*x^n)^(2*I*b))/(2+3*I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4605, 4601, 371}

$$\int x \sec^3(a + b \log(cx^n)) \, dx = \frac{8e^{3ia}x^2(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3, \frac{1}{2}\left(3 - \frac{2i}{bn}\right), \frac{1}{2}\left(5 - \frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{2 + 3ibn}$$

```
[In] Int[x*Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (8*E^((3*I)*a)*x^2*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 - (2*I)/(b*n))
/2, (5 - (2*I)/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(2 + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sec^3(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(8e^{3ia}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{2}{n}}}{(1+e^{2ia}x^{2ib})^3}\,dx,x,cx^n\right)}{n}$$

$$= \frac{8e^{3ia}x^2(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{2i}{bn}\right),\frac{1}{2}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{2+3ibn}$$

Mathematica [A] (verified)

Time = 4.96 (sec) , antiderivative size = 118, normalized size of antiderivative = 1.36

$$\int x\sec^3\left(a+b\log\left(cx^n\right)\right)\,dx$$
$$= \frac{x^2\left(2e^{ia}(2-ibn)\left(cx^n\right)^{ib}\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{bn},\frac{3}{2}-\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)+\sec\left(a+b\log\left(cx^n\right)\right)(-\right.}{2b^2n^2}$$

```
[In] Integrate[x*Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^2*(2*E^(I*a)*(2 - I*b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - I/(b*n
), 3/2 - I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Sec[a + b*Log[c*x^n]]*(-
2 + b*n*Tan[a + b*Log[c*x^n]])))/(2*b^2*n^2)
```

Maple [F]

$$\int x\mathrm{sec}\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}dx$$

```
[In] int(x*sec(a+b*ln(c*x^n))^3,x)
[Out] int(x*sec(a+b*ln(c*x^n))^3,x)
```

Fricas [F]

$$\int x\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^3,x, algorithm="fricas")
[Out] integral(x*sec(b*log(c*x^n) + a)^3, x)
```

Sympy [F]

$$\int x\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*sec(a+b*ln(c*x**n))**3,x)
[Out] Integral(x*sec(a + b*log(c*x**n))**3, x)
```

Maxima [F]

$$\int x\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^3,x, algorithm="maxima")
[Out] -((b*n*sin(b*log(c)) + 2*cos(b*log(c)))*x^2*cos(b*log(x^n) + a) + (b*n*cos(
b*log(c)) - 2*sin(b*log(c)))*x^2*sin(b*log(x^n) + a) + (((b*cos(3*b*log(c))
*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))*n + 2*cos(4*b*log(c))
*cos(3*b*log(c)) + 2*sin(4*b*log(c))*sin(3*b*log(c)))*x^2*cos(3*b*log(x^n)
+ 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(b*log(c)
))*n - 2*cos(4*b*log(c))*cos(b*log(c)) - 2*sin(4*b*log(c))*sin(b*log(c)))*x
^2*cos(b*log(x^n) + a) - ((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*lo
g(c))*sin(3*b*log(c)))*n - 2*cos(3*b*log(c))*sin(4*b*log(c)) + 2*cos(4*b*lo
g(c))*sin(3*b*log(c)))*x^2*sin(3*b*log(x^n) + 3*a) + ((b*cos(4*b*log(c))*co
```

s(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + 2*cos(b*log(c))*sin(4*b*
log(c)) - 2*cos(4*b*log(c))*sin(b*log(c)))*x^2*sin(b*log(x^n) + a))*cos(4*b
*log(x^n) + 4*a) - (2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c
))*sin(2*b*log(c)))*n - 2*cos(3*b*log(c))*cos(2*b*log(c)) - 2*sin(3*b*log(c
))*sin(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) - 2*((b*cos(3*b*log(c))*cos
(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + 2*cos(2*b*log(c))*sin
(3*b*log(c)) - 2*cos(3*b*log(c))*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*
a) + (b*n*sin(3*b*log(c)) - 2*cos(3*b*log(c)))*x^2)*cos(3*b*log(x^n) + 3*a)
 - 2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*
n - 2*cos(2*b*log(c))*cos(b*log(c)) - 2*sin(2*b*log(c))*sin(b*log(c)))*x^2*
cos(b*log(x^n) + a) - ((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))
*sin(b*log(c)))*n + 2*cos(b*log(c))*sin(2*b*log(c)) - 2*cos(2*b*log(c))*sin
(b*log(c)))*x^2*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (b^4*n^4*cos
(b*log(c)) + 4*b^2*n^2*cos(b*log(c)) + ((b^4*cos(4*b*log(c))^2*cos(b*log(c)
) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + 4*(b^2*cos(4*b*log(c))^2*cos
(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2)*cos(4*b*log(x^n) + 4
a)^2 + 4((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(2*b
*log(c))^2)*n^4 + 4*(b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c)
)*sin(2*b*log(c))^2)*n^2)*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))
^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + 4*(b^2*cos(4*
b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2)*sin(4
*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*
log(c))*sin(2*b*log(c))^2)*n^4 + 4*(b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b
^2*cos(b*log(c))*sin(2*b*log(c))^2)*n^2)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^4
*n^4*cos(4*b*log(c))*cos(b*log(c)) + 4*b^2*n^2*cos(4*b*log(c))*cos(b*log(c)
) + 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c
))*sin(4*b*log(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*lo
g(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^
2)*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*
log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*c
os(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*lo
g(c))*sin(2*b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a
) + 4*(b^4*n^4*cos(2*b*log(c))*cos(b*log(c)) + 4*b^2*n^2*cos(2*b*log(c))*co
s(b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(b^4*n^4*cos(b*log(c))*sin(4*b*log
(c)) + 4*b^2*n^2*cos(b*log(c))*sin(4*b*log(c)) + 2*((b^4*cos(2*b*log(c))*co
s(b*log(c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log
(c)))*n^4 + 4*(b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(
4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) - 2
*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))*si
n(4*b*log(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))
*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^2)*si
n(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*cos(b*log(c))*s
in(2*b*log(c)) + 4*b^2*n^2*cos(b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n)
 + 2*a))*integrate(((x*cos(2*b*log(c))*cos(b*log(x^n) + a) + x*sin(2*b*log(c
))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) + x*cos(b*log(x^n) + a) - (

x*cos(b*log(x^n) + a)*sin(2*b*log(c)) - x*cos(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) - (b^4*n^4*sin(b*log(c)) + 4*b^2*n^2*sin(b*log(c)) + ((b^4*cos(4*b*log(c))^2*sin(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*cos(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))^2*sin(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^4*n^4*cos(4*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*cos(4*b*log(c))*sin(b*log(c)) + 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 4*(b^4*n^4*cos(2*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*cos(2*b*log(c))*sin(b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(b^4*n^4*sin(4*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*sin(4*b*log(c))*sin(b*log(c)) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*sin(2*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*sin(2*b*log(c))*sin(b*log(c)))*sin(2*b*log(x^n) + 2*a))*integrate(((x*cos(b*log(x^n) + a)*sin(2*b*log(c)) - x*cos(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) + (x*cos(2*b*log(c))*cos(b*log(x^n) + a) + x*sin(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) - x*sin(b*log(x^n) + a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) + (((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n - 2*cos(3*b*log(c))*sin(4*b*log(c)) + 2*cos(4*b*log(c))*sin(3*b*log(c)))*x^2*cos(3*b*log(x^n) + 3*a) - ((b*cos(4*b*log(

```
c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + 2*cos(b*log(c))*si
n(4*b*log(c)) - 2*cos(4*b*log(c))*sin(b*log(c)))*x^2*cos(b*log(x^n) + a) +
((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))*n
+ 2*cos(4*b*log(c))*cos(3*b*log(c)) + 2*sin(4*b*log(c))*sin(3*b*log(c)))*x^
2*sin(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*l
og(c))*sin(b*log(c)))*n - 2*cos(4*b*log(c))*cos(b*log(c)) - 2*sin(4*b*log(c
))*sin(b*log(c)))*x^2*sin(b*log(x^n) + a))*sin(4*b*log(x^n) + 4*a) - (2*((b
*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + 2
*cos(2*b*log(c))*sin(3*b*log(c)) - 2*cos(3*b*log(c))*sin(2*b*log(c)))*x^2*c
os(2*b*log(x^n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*
log(c))*sin(2*b*log(c)))*n - 2*cos(3*b*log(c))*cos(2*b*log(c)) - 2*sin(3*b*
log(c))*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*a) + (b*n*cos(3*b*log(c))
 + 2*sin(3*b*log(c)))*x^2)*sin(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))
*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n + 2*cos(b*log(c))*sin(2
*b*log(c)) - 2*cos(2*b*log(c))*sin(b*log(c)))*x^2*cos(b*log(x^n) + a) + ((b
*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n - 2*cos
(2*b*log(c))*cos(b*log(c)) - 2*sin(2*b*log(c))*sin(b*log(c)))*x^2*sin(b*log
(x^n) + a))*sin(2*b*log(x^n) + 2*a))/(4*b^2*n^2*cos(2*b*log(c))*cos(2*b*log
(x^n) + 2*a) - 4*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos
(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*cos(4*b*log(x^n) + 4*a)^2 + 4*(
b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^
2 + (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*sin(4*b*log(x^n) +
4*a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(
x^n) + 2*a)^2 + b^2*n^2 + 2*(b^2*n^2*cos(4*b*log(c)) + 2*(b^2*cos(4*b*log(c
))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*cos(2*b*log(x
^n) + 2*a) + 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*s
in(2*b*log(c)))*n^2*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b
^2*n^2*sin(4*b*log(c)) + 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4
*b*log(c))*sin(2*b*log(c)))*n^2*cos(2*b*log(x^n) + 2*a) - 2*(b^2*cos(4*b*lo
g(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*sin(2*b*lo
g(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int x\sec^3\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec\left(b\log\left(cx^n\right)+a\right)^3\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^3,x, algorithm="giac")
[Out] integrate(x*sec(b*log(c*x^n) + a)^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sec^3\left(a+b\log\left(cx^n\right)\right)\,dx=\int \frac{x}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^3}\,dx$$

```
[In] int(x/cos(a + b*log(c*x^n))^3,x)
[Out] int(x/cos(a + b*log(c*x^n))^3, x)
```

3.250 $\int \sec^3(a+b\log(cx^n))\,dx$

Optimal result . . . 2413
Rubi [A] (verified) . . . 2413
Mathematica [A] (verified) . . . 2414
Maple [F] . . . 2415
Fricas [F] . . . 2415
Sympy [F] . . . 2415
Maxima [F] . . . 2415
Giac [F] . . . 2418
Mupad [F(-1)] . . . 2419

Optimal result

Integrand size = 13, antiderivative size = 85

$$\int \sec^3(a+b\log(cx^n))\,dx = \frac{8e^{3ia}x(cx^n)^{3ib}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+3ibn}$$

```
[Out] 8*exp(3*I*a)*x*(c*x^n)^(3*I*b)*hypergeom([3, 3/2-1/2*I/b/n],[5/2-1/2*I/b/n]
,-exp(2*I*a)*(c*x^n)^(2*I*b))/(1+3*I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4599, 4601, 371}

$$\int \sec^3(a+b\log(cx^n))\,dx = \frac{8e^{3ia}x(cx^n)^{3ib}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+3ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (8*E^((3*I)*a)*x*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 - I/(b*n))/2, (5
 - I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^3(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(8e^{3ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^3}\,dx, x, cx^n\right)}{n}$$

$$= \frac{8e^{3ia}x(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3, \frac{1}{2}\left(3-\frac{i}{bn}\right), \frac{1}{2}\left(5-\frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{1+3ibn}$$

Mathematica [A] (verified)

Time = 4.49 (sec) , antiderivative size = 120, normalized size of antiderivative = 1.41

$$\int \sec^3(a+b\log(cx^n))\,dx$$

$$= \frac{x\left(2e^{ia}(1-ibn)(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}-\frac{i}{2bn}, \frac{3}{2}-\frac{i}{2bn}, -e^{2i(a+b\log(cx^n))}\right)+\sec(a+b\log(cx^n))(-\right.}{2b^2n^2}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x*(2*E^(I*a)*(1 - I*b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - (I/2)/(b
*n), 3/2 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Sec[a + b*Log[c*x^
n]]*(-1 + b*n*Tan[a + b*Log[c*x^n]])))/(2*b^2*n^2)
```

Maple [F]

$$\int \sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^3,x)
```

```
[Out] int(sec(a+b*ln(c*x^n))^3,x)
```

Fricas [F]

$$\int \sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3,x, algorithm="fricas")
```

```
[Out] integral(sec(b*log(c*x^n) + a)^3, x)
```

Sympy [F]

$$\int \sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec^{3}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**3,x)
```

```
[Out] Integral(sec(a + b*log(c*x**n))**3, x)
```

Maxima [F]

$$\int \sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3,x, algorithm="maxima")
```

```
[Out] -((b*n*sin(b*log(c)) + cos(b*log(c)))*x*cos(b*log(x^n) + a) + (b*n*cos(b*lo
g(c)) - sin(b*log(c)))*x*sin(b*log(x^n) + a) + (((b*cos(3*b*log(c))*sin(4*b
*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))*n + cos(4*b*log(c))*cos(3*b*l
og(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) - ((b*c
os(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(b*log(c)))*n - cos(4*b
*log(c))*cos(b*log(c)) - sin(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) +
a) - ((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)
))*n - cos(3*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*x
*sin(3*b*log(x^n) + 3*a) + ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*lo
```

g(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*si
n(b*log(c)))*x*sin(b*log(x^n) + a))*cos(4*b*log(x^n) + 4*a) - (2*((b*cos(2*
b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(3*b*
log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^
n) + 2*a) - 2*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2
*b*log(c)))*n + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*l
og(c)))*x*sin(2*b*log(x^n) + 2*a) + (b*n*sin(3*b*log(c)) - cos(3*b*log(c)))
*x)*cos(3*b*log(x^n) + 3*a) - 2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(
2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - sin(2*b*log(
c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) - ((b*cos(2*b*log(c))*cos(b*log(c)
) + b*sin(2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - co
s(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a)
 - (b^4*n^4*cos(b*log(c)) + b^2*n^2*cos(b*log(c)) + ((b^4*cos(4*b*log(c))^2
*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + (b^2*cos(4*b*lo
g(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2)*cos(4*b*l
og(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(
c))*sin(2*b*log(c))^2)*n^4 + (b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos
(b*log(c))*sin(2*b*log(c))^2)*n^2)*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*
b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + (b^2
*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2
)*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4
*cos(b*log(c))*sin(2*b*log(c))^2)*n^4 + (b^2*cos(2*b*log(c))^2*cos(b*log(c)
) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*n^2)*sin(2*b*log(x^n) + 2*a)^2 + 2
*(b^4*n^4*cos(4*b*log(c))*cos(b*log(c)) + b^2*n^2*cos(4*b*log(c))*cos(b*log
(c)) + 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*lo
g(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*l
og(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n
^2)*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b
*log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*co
s(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log
(c))*sin(2*b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a)
 + 4*(b^4*n^4*cos(2*b*log(c))*cos(b*log(c)) + b^2*n^2*cos(2*b*log(c))*cos(b
*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(b^4*n^4*cos(b*log(c))*sin(4*b*log(c)
) + b^2*n^2*cos(b*log(c))*sin(4*b*log(c)) + 2*((b^4*cos(2*b*log(c))*cos(b*l
og(c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))
*n^4 + (b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log
(c))*cos(b*log(c))*sin(2*b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) - 2*((b^4*
cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*l
og(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*lo
g(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^2)*sin(2*b*log
(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*cos(b*log(c))*sin(2*b*lo
g(c)) + b^2*n^2*cos(b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*int
egrate(((cos(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c))*sin(b*log(x^
n) + a))*cos(2*b*log(x^n) + 2*a) - (cos(b*log(x^n) + a)*sin(2*b*log(c)) - c
os(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) + cos(b*log(x^n

```
) + a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin(
2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*
log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin
(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) - (b^4*n^4*sin
(b*log(c)) + b^2*n^2*sin(b*log(c)) + ((b^4*cos(4*b*log(c))^2*sin(b*log(c))
+ b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))^2*sin(b*l
og(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*cos(4*b*log(x^n) + 4*a)^
2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c))^2*sin(b*l
og(c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*
sin(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))^2*sin
(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c)
)^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*sin(4*b*log(x
^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c)
)^2*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b
*log(c))^2*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^4*n^4*cos(4
*b*log(c))*sin(b*log(c)) + b^2*n^2*cos(4*b*log(c))*sin(b*log(c)) + 2*((b^4*
cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b
*log(c))*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*lo
g(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*cos(2*b*log
(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^4*
cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))*s
in(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*lo
g(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 4*(b^4*n^4*c
os(2*b*log(c))*sin(b*log(c)) + b^2*n^2*cos(2*b*log(c))*sin(b*log(c)))*cos(2
*b*log(x^n) + 2*a) - 2*(b^4*n^4*sin(4*b*log(c))*sin(b*log(c)) + b^2*n^2*sin
(4*b*log(c))*sin(b*log(c)) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*
log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + (b^2*cos
(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*lo
g(c))*sin(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*log(c))
*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*
log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin
(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*s
in(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*sin(2*b*log(c))*sin(b*log(c)) + b^2*n^2
*sin(2*b*log(c))*sin(b*log(c)))*sin(2*b*log(x^n) + 2*a))*integrate(((cos(b*
log(x^n) + a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*
b*log(x^n) + 2*a) + (cos(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c))*
sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) - sin(b*log(x^n) + a))/(2*b^2*
n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*
cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)
*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) + (((b*cos(4*b*log(c))*cos(3*
b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n - cos(3*b*log(c))*sin(4*b*
log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) - ((b*
cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + cos(b*
log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) +
```

```
 a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c
)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*
x*sin(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*l
og(c))*sin(b*log(c)))*n - cos(4*b*log(c))*cos(b*log(c)) - sin(4*b*log(c))*s
in(b*log(c)))*x*sin(b*log(x^n) + a))*sin(4*b*log(x^n) + 4*a) - (2*((b*cos(3
*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b
*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x
^n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(
2*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*sin(2*b*
log(c)))*x*sin(2*b*log(x^n) + 2*a) + (b*n*cos(3*b*log(c)) + sin(3*b*log(c))
)*x)*sin(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin
(2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log
(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) + ((b*cos(b*log(c))*sin(2*b*log(c
)) - b*cos(2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - s
in(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a
))/(4*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 4*b^2*n^2*sin(2*b*l
og(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c
))^2)*n^2*cos(4*b*log(x^n) + 4*a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*
b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(4*b*log(c))^2 + b^2*s
in(4*b*log(c))^2)*n^2*sin(4*b*log(x^n) + 4*a)^2 + 4*(b^2*cos(2*b*log(c))^2
+ b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2 + 2*(b^2*n
^2*cos(4*b*log(c)) + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*l
og(c))*sin(2*b*log(c)))*n^2*cos(2*b*log(x^n) + 2*a) + 2*(b^2*cos(2*b*log(c)
)*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*sin(2*b*log(x^
n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b^2*n^2*sin(4*b*log(c)) + 2*(b^2*co
s(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*co
s(2*b*log(x^n) + 2*a) - 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*
b*log(c))*sin(2*b*log(c)))*n^2*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) +
4*a))
```

Giac [F]

$$\int \sec^3(a+b\log(cx^n))\,dx=\int \sec(b\log(cx^n)+a)^3\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^3(a+b\log(cx^n))\,dx = \int \frac{1}{\cos(a+b\ln(c\,x^n))^3}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^3,x)
[Out] int(1/cos(a + b*log(c*x^n))^3, x)
```

3.251 $\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx$

Optimal result 2420
Rubi [A] (verified) 2420
Mathematica [A] (verified) 2421
Maple [A] (verified) 2421
Fricas [A] (verification not implemented) 2422
Sympy [F] 2422
Maxima [F] 2423
Giac [F] 2425
Mupad [B] (verification not implemented) 2425

Optimal result

Integrand size = 17, antiderivative size = 55

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx = \frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{2bn} + \frac{\sec(a+b\log(cx^n))\tan(a+b\log(cx^n))}{2bn}$$

```
[Out] 1/2*arctanh(sin(a+b*ln(c*x^n)))/b/n+1/2*sec(a+b*ln(c*x^n))*tan(a+b*ln(c*x^n
))/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3853, 3855}

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx = \frac{\operatorname{arctanh}(\sin(a+b\log(cx^n)))}{2bn} + \frac{\tan(a+b\log(cx^n))\sec(a+b\log(cx^n))}{2bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] ArcTanh[Sin[a + b*Log[c*x^n]]]/(2*b*n) + (Sec[a + b*Log[c*x^n]]*Tan[a + b*L
og[c*x^n]])/(2*b*n)
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
```

```
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3855

```
Int[csc[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-ArcTanh[Cos[c + d*x]]/d, x]
 /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \sec^3(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{\sec\left(a+b\log\left(cx^n\right)\right)\tan\left(a+b\log\left(cx^n\right)\right)}{2bn}+\frac{\text{Subst}\left(\int \sec(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{2n}\\ &= \frac{\text{arctanh}\left(\sin\left(a+b\log\left(cx^n\right)\right)\right)}{2bn}+\frac{\sec\left(a+b\log\left(cx^n\right)\right)\tan\left(a+b\log\left(cx^n\right)\right)}{2bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.07 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.00

$$\int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = \frac{\text{arctanh}\left(\sin\left(a+b\log\left(cx^n\right)\right)\right)}{2bn} + \frac{\sec\left(a+b\log\left(cx^n\right)\right)\tan\left(a+b\log\left(cx^n\right)\right)}{2bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] ArcTanh[Sin[a + b*Log[c*x^n]]]/(2*b*n) + (Sec[a + b*Log[c*x^n]]*Tan[a + b*L
og[c*x^n]])/(2*b*n)
```

Maple [A] (verified)

Time = 5.48 (sec) , antiderivative size = 59, normalized size of antiderivative = 1.07

method	result
derivativedivides	$\frac{\frac{\sec(a+b\ln(c\,x^{n}))\tan(a+b\ln(c\,x^{n}))}{2}+\frac{\ln(\sec(a+b\ln(c\,x^{n}))+\tan(a+b\ln(c\,x^{n})))}{2}}{nb}$
default	$\frac{\frac{\sec(a+b\ln(c\,x^{n}))\tan(a+b\ln(c\,x^{n}))}{2}+\frac{\ln(\sec(a+b\ln(c\,x^{n}))+\tan(a+b\ln(c\,x^{n})))}{2}}{nb}$
parallelrisch	$\frac{(-\cos(2b\ln(c\,x^{n})+2a)-1)\ln(\tan(\frac{a}{2}+b\ln(\sqrt{c\,x^{n}}))-1)+(\cos(2b\ln(c\,x^{n})+2a)+1)\ln(\tan(\frac{a}{2}+b\ln(\sqrt{c\,x^{n}}))+1)+2\sin(a+b}{2bn(\cos(2b\ln(c\,x^{n})+2a)+1)}$
risch	$-\frac{i(x^{n})^{ib}c^{ib}\left(c^{2ib}(x^{n})^{2ib}\mathrm{e}^{\frac{3b\pi\,\mathrm{csgn}(ic\,x^{n})^{3}}{2}}\mathrm{e}^{-\frac{3b\pi\,\mathrm{csgn}(ic\,x^{n})^{2}\mathrm{csgn}(ic)}{2}}\mathrm{e}^{-\frac{3b\pi\,\mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic\,x^{n})^{2}}{2}}\mathrm{e}^{\frac{3b\pi\,\mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic\,x^{n})}{2}}\right.}{bn\left((x^{n})^{2ib}c^{2ib}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic\,x^{n})^{2}}\mathrm{e}^{b\pi\,\mathrm{csgn}(ix^{n})\,\mathrm{csgn}(ic}\right.}$

[In] int(sec(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)

[Out] 1/n/b*(1/2*sec(a+b*ln(c*x^n))*tan(a+b*ln(c*x^n))+1/2*ln(sec(a+b*ln(c*x^n))+tan(a+b*ln(c*x^n))))

Fricas [A] (verification not implemented)

none

Time = 0.27 (sec) , antiderivative size = 100, normalized size of antiderivative = 1.82

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx = \frac{\cos(bn\log(x)+b\log(c)+a)^2\log(\sin(bn\log(x)+b\log(c)+a)+1)-\cos(bn\log(x)+b\log(c)+a)^2\log}{4\,bn\cos(bn\log(x)+b\log(c)+a)^2}$$

[In] integrate(sec(a+b*log(c*x^n))^3/x,x, algorithm="fricas")

[Out] 1/4*(cos(b*n*log(x) + b*log(c) + a)^2*log(sin(b*n*log(x) + b*log(c) + a) + 1) - cos(b*n*log(x) + b*log(c) + a)^2*log(-sin(b*n*log(x) + b*log(c) + a) + 1) + 2*sin(b*n*log(x) + b*log(c) + a))/(b*n*cos(b*n*log(x) + b*log(c) + a)^2)

Sympy [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx = \int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx$$

[In] integrate(sec(a+b*ln(c*x**n))**3/x,x)

[Out] Integral(sec(a + b*log(c*x**n))**3/x, x)

Maxima [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx = \int \frac{\sec(b\log(cx^n)+a)^3}{x}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))^3/x,x, algorithm="maxima")

[Out] -(((cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - (cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) - (cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + (cos(4*b*log(c))*cos(b*log(c)) + sin(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(4*b*log(x^n) + 4*a) - (2*(cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(cos(3*b*log(c))*cos(2*b*log(c)) + sin(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 2*((cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) - (cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (4*b*n*cos(2*b*log(c))*cos(b*log(c))*cos(2*b*log(x^n) + 2*a) - 4*b*n*cos(b*log(c))*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(4*b*log(c))^2*cos(b*log(c)) + b*cos(b*log(c))*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 + 4*(b*cos(2*b*log(c))^2*cos(b*log(c)) + b*cos(b*log(c))*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(4*b*log(c))^2*cos(b*log(c)) + b*cos(b*log(c))*sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4*a)^2 + 4*(b*cos(2*b*log(c))^2*cos(b*log(c)) + b*cos(b*log(c))*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 + b*n*cos(b*log(c)) + 2*(b*n*cos(4*b*log(c))*cos(b*log(c)) + 2*(b*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + 2*(b*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b*n*cos(b*log(c))*sin(4*b*log(c)) + 2*(b*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - 2*(b*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))*integrate(((cos(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (cos(b*log(x^n) + a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) + cos(b*log(x^n) + a))/((cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*x*cos(2*b*log(x^n) + 2*a)^2 + (cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*x*sin(2*b*log(x^n) + 2*a)^2 + 2*x*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*x*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + x), x) - (4*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a)*sin(b*log(c)) - 4*b*n*sin(2*b*log(c))*sin(b*log(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(4*b*log(c))^2*sin(b*log(c)) + b*sin(4*b*log(c))^2*sin(b*log(c)))*n*cos(4*b*log(x^n) + 4*a)^2 + 4*(b*cos(2*b*log(c))^2*sin(b*log(c)) + b*s

```
in(2*b*log(c))^2*sin(b*log(c)))*n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(4*b*lo
g(c))^2*sin(b*log(c)) + b*sin(4*b*log(c))^2*sin(b*log(c)))*n*sin(4*b*log(x^
n) + 4*a)^2 + 4*(b*cos(2*b*log(c))^2*sin(b*log(c)) + b*sin(2*b*log(c))^2*si
n(b*log(c)))*n*sin(2*b*log(x^n) + 2*a)^2 + b*n*sin(b*log(c)) + 2*(b*n*cos(4
*b*log(c))*sin(b*log(c)) + 2*(b*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c
)) + b*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n*cos(2*b*log(x^n) +
2*a) + 2*(b*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b*cos(4*b*log(c
))*sin(2*b*log(c))*sin(b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^
n) + 4*a) - 2*(b*n*sin(4*b*log(c))*sin(b*log(c)) + 2*(b*cos(2*b*log(c))*sin
(4*b*log(c))*sin(b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)
))*n*cos(2*b*log(x^n) + 2*a) - 2*(b*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*l
og(c)) + b*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n*sin(2*b*log(x^n
) + 2*a))*sin(4*b*log(x^n) + 4*a))*integrate(((cos(b*log(x^n) + a)*sin(2*b*
log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) + (c
os(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c))*sin(b*log(x^n) + a))*s
in(2*b*log(x^n) + 2*a) - sin(b*log(x^n) + a))/((cos(2*b*log(c))^2 + sin(2*b
*log(c))^2)*x*cos(2*b*log(x^n) + 2*a)^2 + (cos(2*b*log(c))^2 + sin(2*b*log(
c))^2)*x*sin(2*b*log(x^n) + 2*a)^2 + 2*x*cos(2*b*log(c))*cos(2*b*log(x^n) +
 2*a) - 2*x*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + x), x) + cos(b*log(x^
n) + a)*sin(b*log(c)) + ((cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))
*sin(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - (cos(4*b*log(c))*cos(b*log(c))
+ sin(4*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) + (cos(3*b*log(c))*sin
(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - (
cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^
n) + a))*sin(4*b*log(x^n) + 4*a) - (2*(cos(3*b*log(c))*cos(2*b*log(c)) + si
n(3*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))
*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a)
 + cos(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - 2*((cos(2*b*log(c))*cos(b*log
(c)) + sin(2*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) + (cos(b*log(c))*
sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(2
*b*log(x^n) + 2*a) + cos(b*log(c))*sin(b*log(x^n) + a))/((b*cos(4*b*log(c))
^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 + 4*b*n*cos(2*b*log(c
))*cos(2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*
n*cos(2*b*log(x^n) + 2*a)^2 + (b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n
*sin(4*b*log(x^n) + 4*a)^2 - 4*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a)
+ 4*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2
 + b*n + 2*(b*n*cos(4*b*log(c)) + 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*
sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + 2*(b*cos(2*b*l
og(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x
^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(2*(b*cos(2*b*log(c))*sin(4*b*log(c
)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + b*n*sin
(4*b*log(c)) - 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin
(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx=\int \frac{\sec(b\log(cx^n)+a)^3}{x}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3/x,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^3/x, x)
```

Mupad [B] (verification not implemented)

Time = 32.52 (sec) , antiderivative size = 178, normalized size of antiderivative = 3.24

$$\int \frac{\sec^3(a+b\log(cx^n))}{x}\,dx=\frac{\ln\left(-\frac{1\mathrm{i}}{x}-\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{x}\right)}{2\,b\,n}-\frac{\ln\left(\frac{1\mathrm{i}}{x}-\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{x}\right)}{2\,b\,n}+\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}\,2\mathrm{i}}{b\,n\,\left(2\,\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}+\mathrm{e}^{a\,4\mathrm{i}}\,(c\,x^n)^{b\,4\mathrm{i}}+1\right)}-\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}\,1\mathrm{i}}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}+1\right)}$$

```
[In] int(1/(x*cos(a + b*log(c*x^n))^3),x)
[Out] log(- 1i/x - (exp(a*1i)*(c*x^n)^(b*1i))/x)/(2*b*n) - log(1i/x - (exp(a*1i)*
(c*x^n)^(b*1i))/x)/(2*b*n) + (exp(a*1i)*(c*x^n)^(b*1i)*2i)/(b*n*(2*exp(a*2i
)*(c*x^n)^(b*2i) + exp(a*4i)*(c*x^n)^(b*4i) + 1)) - (exp(a*1i)*(c*x^n)^(b*1
i)*1i)/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1))
```

3.252 $\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 2426
Rubi [A] (verified) 2426
Mathematica [A] (verified) 2427
Maple [F] 2428
Fricas [F] 2428
Sympy [F] 2428
Maxima [F] 2428
Giac [F] 2431
Mupad [F(-1)] 2432

Optimal result

Integrand size = 17, antiderivative size = 87

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3+\frac{i}{bn}\right),\frac{1}{2}\left(5+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(1-3ibn)x}$$

```
[Out] -8*exp(3*I*a)*(c*x^n)^(3*I*b)*hypergeom([3, 3/2+1/2*I/b/n],[5/2+1/2*I/b/n],
-exp(2*I*a)*(c*x^n)^(2*I*b))/(1-3*I*b*n)/x
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3+\frac{i}{bn}\right),\frac{1}{2}\left(5+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x(1-3ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] (-8*E^((3*I)*a)*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 + I/(b*n))/2, (5
+ I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - (3*I)*b*n)*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\sec^3(a+b\log(x))\,dx, x, cx^n\right)}{nx}\\ &= \frac{\left(8e^{3ia}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+3ib-\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^3}\,dx, x, cx^n\right)}{nx}\\ &= -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3, \frac{1}{2}\left(3+\frac{i}{bn}\right), \frac{1}{2}\left(5+\frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(1-3ibn)x}\end{aligned}$$

Mathematica [A] (verified)

Time = 4.62 (sec) , antiderivative size = 123, normalized size of antiderivative = 1.41

$$\int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx = \frac{-2ie^{ia}(-i+bn)\left(cx^n\right)^{ib}\text{Hypergeometric2F1}\left(1, \frac{1}{2}+\frac{i}{2bn}, \frac{3}{2}+\frac{i}{2bn}, -e^{2i(a+b\log(cx^n))}\right)+\sec\left(a+b\log\left(cx^n\right)\right)(}{2b^2n^2x}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^3/x^2,x]
```

```
[Out] ((-2*I)*E^(I*a)*(-I + b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + (I/2)/(
b*n), 3/2 + (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Sec[a + b*Log[c*x
^n]]*(1 + b*n*Tan[a + b*Log[c*x^n]]))/(2*b^2*n^2*x)
```

Maple [F]

$$\int \frac{\sec \left(a+b \ln \left(c \,x^{n}\right)\right)^{3}}{x^{2}}d x$$

[In] int(sec(a+b*ln(c*x^n))^3/x^2,x)

[Out] int(sec(a+b*ln(c*x^n))^3/x^2,x)

Fricas [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^3}{x^2}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))^3/x^2,x, algorithm="fricas")

[Out] integral(sec(b*log(c*x^n) + a)^3/x^2, x)

Sympy [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx$$

[In] integrate(sec(a+b*ln(c*x**n))**3/x**2,x)

[Out] Integral(sec(a + b*log(c*x**n))**3/x**2, x)

Maxima [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^3}{x^2}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))^3/x^2,x, algorithm="maxima")

[Out] -((((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))
*n - cos(4*b*log(c))*cos(3*b*log(c)) - sin(4*b*log(c))*sin(3*b*log(c)))*cos
(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c)
)*sin(b*log(c)))*n + cos(4*b*log(c))*cos(b*log(c)) + sin(4*b*log(c))*sin(b*
log(c)))*cos(b*log(x^n) + a) - ((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(
4*b*log(c))*sin(3*b*log(c)))*n + cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*
log(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + ((b*cos(4*b*log(c))*cos(
b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n - cos(b*log(c))*sin(4*b*log(

c)) + cos(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(4*b*log(x^n)
+ 4*a) - (b*n*sin(3*b*log(c)) + 2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*c
os(3*b*log(c))*sin(2*b*log(c)))*n + cos(3*b*log(c))*cos(2*b*log(c)) + sin(3
*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*((b*cos(3*b*log(c))
*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n - cos(2*b*log(c))*s
in(3*b*log(c)) + cos(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) +
cos(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 2*(((b*cos(b*log(c))*sin(2*b*lo
g(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n + cos(2*b*log(c))*cos(b*log(c))
+ sin(2*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) - ((b*cos(2*b*log(c))*
cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n - cos(b*log(c))*sin(2*b*
log(c)) + cos(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(2*b*log(x
^n) + 2*a) + (b*n*sin(b*log(c)) - cos(b*log(c)))*cos(b*log(x^n) + a) - (((b
^4*cos(4*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n
^4 + (b^2*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c
))^2)*n^2)*x*cos(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*lo
g(c)) + b^4*cos(b*log(c))*sin(2*b*log(c))^2)*n^4 + (b^2*cos(2*b*log(c))^2*c
os(b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*n^2)*x*cos(2*b*log(x^n)
+ 2*a)^2 + ((b^4*cos(4*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4
*b*log(c))^2)*n^4 + (b^2*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c)
)*sin(4*b*log(c))^2)*n^2)*x*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log
(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(2*b*log(c))^2)*n^4 + (b^2*cos(
2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*n^2)*x*s
in(2*b*log(x^n) + 2*a)^2 + 4*(b^4*n^4*cos(2*b*log(c))*cos(b*log(c)) + b^2*n
^2*cos(2*b*log(c))*cos(b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - 4*(b^4*n^4*co
s(b*log(c))*sin(2*b*log(c)) + b^2*n^2*cos(b*log(c))*sin(2*b*log(c)))*x*sin(
2*b*log(x^n) + 2*a) + (b^4*n^4*cos(b*log(c)) + b^2*n^2*cos(b*log(c)))*x + 2
(2((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))
*sin(4*b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c)
)*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^2)*x
*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*lo
g(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(2
*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c)
)*sin(2*b*log(c)))*n^2)*x*sin(2*b*log(x^n) + 2*a) + (b^4*n^4*cos(4*b*log(c)
)*cos(b*log(c)) + b^2*n^2*cos(4*b*log(c))*cos(b*log(c)))*x)*cos(4*b*log(x^n
) + 4*a) - 2*(2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^4*c
os(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(2*b*log(c))*co
s(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log
(c)))*n^2)*x*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*log(c))*cos(2*b*log(
c))*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^4
+ (b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*si
n(4*b*log(c))*sin(2*b*log(c)))*n^2)*x*sin(2*b*log(x^n) + 2*a) + (b^4*n^4*co
s(b*log(c))*sin(4*b*log(c)) + b^2*n^2*cos(b*log(c))*sin(4*b*log(c)))*x)*sin
(4*b*log(x^n) + 4*a))*integrate(((cos(2*b*log(c))*cos(b*log(x^n) + a) + sin
(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (cos(b*log(x^n)
+ a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^

n) + 2*a) + cos(b*log(x^n) + a))/(2*b^2*n^2*x^2*cos(2*b*log(c))*cos(2*b*log
(x^n) + 2*a) - 2*b^2*n^2*x^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2
*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^2*cos(2*b*log(x^n) + 2*a)
^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^2*sin(2*b*log(x^
n) + 2*a)^2 + b^2*n^2*x^2), x) - (((b^4*cos(4*b*log(c))^2*sin(b*log(c)) + b
^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))^2*sin(b*log(
c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*x*cos(4*b*log(x^n) + 4*a)^2
 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c))^2*sin(b*lo
g(c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*s
in(b*log(c)))*n^2)*x*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))^2*si
n(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c
))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*x*sin(4*b*lo
g(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log
(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(
2*b*log(c))^2*sin(b*log(c)))*n^2)*x*sin(2*b*log(x^n) + 2*a)^2 + 4*(b^4*n^4*
cos(2*b*log(c))*sin(b*log(c)) + b^2*n^2*cos(2*b*log(c))*sin(b*log(c)))*x*co
s(2*b*log(x^n) + 2*a) - 4*(b^4*n^4*sin(2*b*log(c))*sin(b*log(c)) + b^2*n^2*
sin(2*b*log(c))*sin(b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (b^4*n^4*sin(b*l
og(c)) + b^2*n^2*sin(b*log(c)))*x + 2*(2*((b^4*cos(4*b*log(c))*cos(2*b*log(
c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4
 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*
sin(2*b*log(c))*sin(b*log(c)))*n^2)*x*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos
(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*lo
g(c))*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c
)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*x*sin(2*b*log(
x^n) + 2*a) + (b^4*n^4*cos(4*b*log(c))*sin(b*log(c)) + b^2*n^2*cos(4*b*log(
c))*sin(b*log(c)))*x)*cos(4*b*log(x^n) + 4*a) - 2*(2*((b^4*cos(2*b*log(c))*
sin(4*b*log(c))*sin(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*l
og(c)))*n^4 + (b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(
4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*x*cos(2*b*log(x^n) + 2*a) -
 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c)
)*sin(2*b*log(c))*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))
*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*x*
sin(2*b*log(x^n) + 2*a) + (b^4*n^4*sin(4*b*log(c))*sin(b*log(c)) + b^2*n^2*
sin(4*b*log(c))*sin(b*log(c)))*x)*sin(4*b*log(x^n) + 4*a))*integrate(((cos(
b*log(x^n) + a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*cos(
2*b*log(x^n) + 2*a) + (cos(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c)
)*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) - sin(b*log(x^n) + a))/(2*b^
2*n^2*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x^2*sin(2*b*l
og(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c
))^2)*n^2*x^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(
2*b*log(c))^2)*n^2*x^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x^2), x) + (((b*
cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n + co
s(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*cos(3*b*lo
g(x^n) + 3*a) - ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b

```
*log(c)))*n - cos(b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(b*log(c))
)*cos(b*log(x^n) + a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log
(c))*sin(3*b*log(c)))*n - cos(4*b*log(c))*cos(3*b*log(c)) - sin(4*b*log(c))
*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c
)) - b*cos(4*b*log(c))*sin(b*log(c)))*n + cos(4*b*log(c))*cos(b*log(c)) + s
in(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(4*b*log(x^n) + 4*a)
- (b*n*cos(3*b*log(c)) + 2*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*
log(c))*sin(2*b*log(c)))*n - cos(2*b*log(c))*sin(3*b*log(c)) + cos(3*b*log(
c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*
b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n + cos(3*b*log(c))*cos(2*b*
log(c)) + sin(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(3*
b*log(c)))*sin(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))*cos(b*log(c)) +
 b*sin(2*b*log(c))*sin(b*log(c)))*n - cos(b*log(c))*sin(2*b*log(c)) + cos(2
*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) + ((b*cos(b*log(c))*sin(2*b*l
og(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n + cos(2*b*log(c))*cos(b*log(c))
 + sin(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2
*a) + (b*n*cos(b*log(c)) + sin(b*log(c)))*sin(b*log(x^n) + a))/(4*b^2*n^2*x
*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 4*b^2*n^2*x*sin(2*b*log(c))*sin(
2*b*log(x^n) + 2*a) + (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*x
*cos(4*b*log(x^n) + 4*a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))
^2)*n^2*x*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*
log(c))^2)*n^2*x*sin(4*b*log(x^n) + 4*a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2
*sin(2*b*log(c))^2)*n^2*x*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x + 2*(b^2*n^
2*x*cos(4*b*log(c)) + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*
log(c))*sin(2*b*log(c)))*n^2*x*cos(2*b*log(x^n) + 2*a) + 2*(b^2*cos(2*b*log
(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*x*sin(2*b*l
og(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b^2*n^2*x*sin(4*b*log(c)) + 2*
(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))
*n^2*x*cos(2*b*log(x^n) + 2*a) - 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b
^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*x*sin(2*b*log(x^n) + 2*a))*sin(4*b*
log(x^n) + 4*a))
```

Giac [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx=\int \frac{\sec(b\log(cx^n)+a)^3}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3/x^2,x, algorithm="giac")
```

```
[Out] integrate(sec(b*log(c*x^n) + a)^3/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^2}\,dx = \int \frac{1}{x^2\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^3}\,dx$$

```
[In] int(1/(x^2*cos(a + b*log(c*x^n))^3),x)
[Out] int(1/(x^2*cos(a + b*log(c*x^n))^3), x)
```

3.253 $\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 2433
Rubi [A] (verified) 2433
Mathematica [A] (verified) 2434
Maple [F] 2435
Fricas [F] 2435
Sympy [F] 2435
Maxima [F] 2435
Giac [F] 2438
Mupad [F(-1)] 2439

Optimal result

Integrand size = 17, antiderivative size = 87

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx = -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3+\frac{2i}{bn}\right),\frac{1}{2}\left(5+\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)x^2}$$

```
[Out] -8*exp(3*I*a)*(c*x^n)^(3*I*b)*hypergeom([3, 3/2+I/b/n],[5/2+I/b/n],-exp(2*I
*a)*(c*x^n)^(2*I*b))/(2-3*I*b*n)/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx = -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3+\frac{2i}{bn}\right),\frac{1}{2}\left(5+\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x^2(2-3ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^3/x^3,x]
```

```
[Out] (-8*E^((3*I)*a)*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 + (2*I)/(b*n))/2,
 (5 + (2*I)/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - (3*I)*b*n)*x
^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sec^3(a+b\log(x))\,dx, x, cx^n\right)}{nx^2}\\
&= \frac{\left(8e^{3ia}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib-\frac{2}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^3}\,dx, x, cx^n\right)}{nx^2}\\
&= -\frac{8e^{3ia}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3, \frac{1}{2}\left(3+\frac{2i}{bn}\right), \frac{1}{2}\left(5+\frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)x^2}
\end{aligned}$$

Mathematica [A] (verified)

Time = 4.74 (sec) , antiderivative size = 119, normalized size of antiderivative = 1.37

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx = \frac{-2ie^{ia}(-2i+bn)(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}+\frac{i}{bn}, \frac{3}{2}+\frac{i}{bn}, -e^{2i(a+b\log(cx^n))}\right)+\sec(a+b\log(cx^n))\,(2+\dots}{2b^2n^2x^2}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^3/x^3,x]
```

```
[Out] ((-2*I)*E^(I*a)*(-2*I + b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + I/(b*
n), 3/2 + I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Sec[a + b*Log[c*x^n]]*(
2 + b*n*Tan[a + b*Log[c*x^n]]))/(2*b^2*n^2*x^2)
```

Maple [F]

$$\int \frac{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}}{x^{3}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^3/x^3,x)
[Out] int(sec(a+b*ln(c*x^n))^3/x^3,x)
```

Fricas [F]

$$\int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^3}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3/x^3,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^3/x^3, x)
```

Sympy [F]

$$\int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**3/x**3,x)
[Out] Integral(sec(a + b*log(c*x**n))**3/x**3, x)
```

Maxima [F]

$$\int \frac{\sec^3\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx = \int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^3}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3/x^3,x, algorithm="maxima")
[Out] -((((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))
*n - 2*cos(4*b*log(c))*cos(3*b*log(c)) - 2*sin(4*b*log(c))*sin(3*b*log(c)))
*cos(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*lo
g(c))*sin(b*log(c)))*n + 2*cos(4*b*log(c))*cos(b*log(c)) + 2*sin(4*b*log(c
)*sin(b*log(c)))*cos(b*log(x^n) + a) - ((b*cos(4*b*log(c))*cos(3*b*log(c))
+ b*sin(4*b*log(c))*sin(3*b*log(c)))*n + 2*cos(3*b*log(c))*sin(4*b*log(c))
- 2*cos(4*b*log(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + ((b*cos(4*b*
log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n - 2*cos(b*log(c)
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```
)*sin(4*b*log(c)) + 2*cos(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*c
os(4*b*log(x^n) + 4*a) - (b*n*sin(3*b*log(c)) + 2*((b*cos(2*b*log(c))*sin(3
*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n + 2*cos(3*b*log(c))*cos(2
*b*log(c)) + 2*sin(3*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2
*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n
 - 2*cos(2*b*log(c))*sin(3*b*log(c)) + 2*cos(3*b*log(c))*sin(2*b*log(c)))*s
in(2*b*log(x^n) + 2*a) + 2*cos(3*b*log(c)))*cos(3*b*log(x^n) + 3*a) - 2*(((
b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n + 2*co
s(2*b*log(c))*cos(b*log(c)) + 2*sin(2*b*log(c))*sin(b*log(c)))*cos(b*log(x^
n) + a) - ((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c
)))*n - 2*cos(b*log(c))*sin(2*b*log(c)) + 2*cos(2*b*log(c))*sin(b*log(c)))*
sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) + (b*n*sin(b*log(c)) - 2*cos(b
*log(c)))*cos(b*log(x^n) + a) - (((b^4*cos(4*b*log(c))^2*cos(b*log(c)) + b^
4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + 4*(b^2*cos(4*b*log(c))^2*cos(b*log
(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2)*x^2*cos(4*b*log(x^n) + 4*a
)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(2*b*l
og(c))^2)*n^4 + 4*(b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*
sin(2*b*log(c))^2)*n^2)*x^2*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c
))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + 4*(b^2*cos(
4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*n^2)*x^2
*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*
cos(b*log(c))*sin(2*b*log(c))^2)*n^4 + 4*(b^2*cos(2*b*log(c))^2*cos(b*log(c
)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*n^2)*x^2*sin(2*b*log(x^n) + 2*a)^
2 + 4*(b^4*n^4*cos(2*b*log(c))*cos(b*log(c)) + 4*b^2*n^2*cos(2*b*log(c))*co
s(b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) - 4*(b^4*n^4*cos(b*log(c))*sin(2*b
*log(c)) + 4*b^2*n^2*cos(b*log(c))*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) +
2*a) + (b^4*n^4*cos(b*log(c)) + 4*b^2*n^2*cos(b*log(c)))*x^2 + 2*(2*((b^4*c
os(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*lo
g(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*l
og(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^2)*x^2*cos(2*
b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) -
 b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*cos(2*b*lo
g(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin
(2*b*log(c)))*n^2)*x^2*sin(2*b*log(x^n) + 2*a) + (b^4*n^4*cos(4*b*log(c))*c
os(b*log(c)) + 4*b^2*n^2*cos(4*b*log(c))*cos(b*log(c)))*x^2)*cos(4*b*log(x^
n) + 4*a) - 2*(2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^4*
cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))
*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*
log(c)))*n^2)*x^2*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*log(c))*cos(2*b
*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))
*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log
(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^2)*x^2*sin(2*b*log(x^n) + 2*a) + (b
^4*n^4*cos(b*log(c))*sin(4*b*log(c)) + 4*b^2*n^2*cos(b*log(c))*sin(4*b*log(
c)))*x^2)*sin(4*b*log(x^n) + 4*a))*integrate(((cos(2*b*log(c))*cos(b*log(x^
n) + a) + sin(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (c
```

os(b*log(x^n) + a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*s
in(2*b*log(x^n) + 2*a) + cos(b*log(x^n) + a))/(2*b^2*n^2*x^3*cos(2*b*log(c)
)*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x^3*sin(2*b*log(c))*sin(2*b*log(x^n)
+ 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^3*cos(2*b*lo
g(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^3*s
in(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x^3), x) - (((b^4*cos(4*b*log(c))^2*sin(
b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c
))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*n^2)*x^2*cos(4*b*
log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*l
og(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*
sin(2*b*log(c))^2*sin(b*log(c)))*n^2)*x^2*cos(2*b*log(x^n) + 2*a)^2 + ((b^4
*cos(4*b*log(c))^2*sin(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4
+ 4*(b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log
(c)))*n^2)*x^2*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*
log(c)) + b^4*sin(2*b*log(c))^2*sin(b*log(c)))*n^4 + 4*(b^2*cos(2*b*log(c))
^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)))*n^2)*x^2*sin(2*b*lo
g(x^n) + 2*a)^2 + 4*(b^4*n^4*cos(2*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*cos(
2*b*log(c))*sin(b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) - 4*(b^4*n^4*sin(2*b
*log(c))*sin(b*log(c)) + 4*b^2*n^2*sin(2*b*log(c))*sin(b*log(c)))*x^2*sin(2
*b*log(x^n) + 2*a) + (b^4*n^4*sin(b*log(c)) + 4*b^2*n^2*sin(b*log(c)))*x^2
+ 2*(2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*lo
g(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*l
og(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n
^2)*x^2*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*s
in(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(
b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin
(2*b*log(c))*sin(b*log(c)))*n^2)*x^2*sin(2*b*log(x^n) + 2*a) + (b^4*n^4*cos
(4*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*cos(4*b*log(c))*sin(b*log(c)))*x^2)*
cos(4*b*log(x^n) + 4*a) - 2*(2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*
log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + 4*(b^2*c
os(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*
log(c))*sin(b*log(c)))*n^2)*x^2*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*l
og(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*
sin(b*log(c)))*n^4 + 4*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) +
b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^2)*x^2*sin(2*b*log(x^
n) + 2*a) + (b^4*n^4*sin(4*b*log(c))*sin(b*log(c)) + 4*b^2*n^2*sin(4*b*log(
c))*sin(b*log(c)))*x^2)*sin(4*b*log(x^n) + 4*a))*integrate(((cos(b*log(x^n)
+ a)*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^
n) + 2*a) + (cos(2*b*log(c))*cos(b*log(x^n) + a) + sin(2*b*log(c))*sin(b*lo
g(x^n) + a))*sin(2*b*log(x^n) + 2*a) - sin(b*log(x^n) + a))/(2*b^2*n^2*x^3*
cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*x^3*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*
x^3*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c)
)^2)*n^2*x^3*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2*x^3), x) + (((b*cos(4*b*lo
g(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n + 2*cos(3*b*lo

```
g(c))*sin(4*b*log(c)) - 2*cos(4*b*log(c))*sin(3*b*log(c)))*cos(3*b*log(x^n)
 + 3*a) - ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c
)))*n - 2*cos(b*log(c))*sin(4*b*log(c)) + 2*cos(4*b*log(c))*sin(b*log(c)))*
cos(b*log(x^n) + a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c
))*sin(3*b*log(c)))*n - 2*cos(4*b*log(c))*cos(3*b*log(c)) - 2*sin(4*b*log(c
))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c))*sin(4*b*log
(c)) - b*cos(4*b*log(c))*sin(b*log(c)))*n + 2*cos(4*b*log(c))*cos(b*log(c))
 + 2*sin(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(4*b*log(x^n) +
 4*a) - (b*n*cos(3*b*log(c)) + 2*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*si
n(3*b*log(c))*sin(2*b*log(c)))*n - 2*cos(2*b*log(c))*sin(3*b*log(c)) + 2*co
s(3*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*((b*cos(2*b*log(
c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n + 2*cos(3*b*log(
c))*cos(2*b*log(c)) + 2*sin(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) +
 2*a) - 2*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))
*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n - 2*cos(b*log(c))*sin(2
*b*log(c)) + 2*cos(2*b*log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) + ((b*cos
(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n + 2*cos(2*b
*log(c))*cos(b*log(c)) + 2*sin(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) +
a))*sin(2*b*log(x^n) + 2*a) + (b*n*cos(b*log(c)) + 2*sin(b*log(c)))*sin(b*l
og(x^n) + a))/(4*b^2*n^2*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 4*b^
2*n^2*x^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(4*b*log(c))^2
+ b^2*sin(4*b*log(c))^2)*n^2*x^2*cos(4*b*log(x^n) + 4*a)^2 + 4*(b^2*cos(2*b
*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^2*cos(2*b*log(x^n) + 2*a)^2 + (b^
2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*x^2*sin(4*b*log(x^n) + 4*a
)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*x^2*sin(2*b*log
(x^n) + 2*a)^2 + b^2*n^2*x^2 + 2*(b^2*n^2*x^2*cos(4*b*log(c)) + 2*(b^2*cos(
4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*x^2*
cos(2*b*log(x^n) + 2*a) + 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(
4*b*log(c))*sin(2*b*log(c)))*n^2*x^2*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x
^n) + 4*a) - 2*(b^2*n^2*x^2*sin(4*b*log(c)) + 2*(b^2*cos(2*b*log(c))*sin(4*
b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*x^2*cos(2*b*log(x^n) +
 2*a) - 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*
b*log(c)))*n^2*x^2*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx=\int \frac{\sec(b\log(cx^n)+a)^3}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^3/x^3,x, algorithm="giac")
```

```
[Out] integrate(sec(b*log(c*x^n) + a)^3/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^3(a+b\log(cx^n))}{x^3}\,dx=\int \frac{1}{x^3\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^3}\,dx$$

```
[In] int(1/(x^3*cos(a + b*log(c*x^n))^3),x)
[Out] int(1/(x^3*cos(a + b*log(c*x^n))^3), x)
```

3.254 $\int x \sec^4(a + b \log(cx^n))\, dx$

Optimal result 2440
Rubi [A] (verified) 2440
Mathematica [B] (verified) 2441
Maple [F] 2442
Fricas [F] 2442
Sympy [F] 2442
Maxima [F] 2442
Giac [F] 2445
Mupad [F(-1)] 2446

Optimal result

Integrand size = 15, antiderivative size = 79

$$\int x \sec^4(a + b \log(cx^n))\, dx = \frac{8e^{4ia}x^2(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4, 2 - \frac{i}{bn}, 3 - \frac{i}{bn}, -e^{2ia}(cx^n)^{2ib}\right)}{1 + 2ibn}$$

```
[Out] 8*exp(4*I*a)*x^2*(c*x^n)^(4*I*b)*hypergeom([4, 2-I/b/n],[3-I/b/n],-exp(2*I*
a)*(c*x^n)^(2*I*b))/(1+2*I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 79, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4605, 4601, 371}

$$\int x \sec^4(a + b \log(cx^n))\, dx = \frac{8e^{4ia}x^2(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4, 2 - \frac{i}{bn}, 3 - \frac{i}{bn}, -e^{2ia}(cx^n)^{2ib}\right)}{1 + 2ibn}$$

```
[In] Int[x*Sec[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (8*E^((4*I)*a)*x^2*(c*x^n)^((4*I)*b)*Hypergeometric2F1[4, 2 - I/(b*n), 3 -
I/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + (2*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sec^4(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(16e^{4ia}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+4ib+\frac{2}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^4}\,dx,x,cx^n\right)}{n}\\ &= \frac{8e^{4ia}x^2(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,2-\frac{i}{bn},3-\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 204 vs. 2(79) = 158.

Time = 9.43 (sec) , antiderivative size = 204, normalized size of antiderivative = 2.58

$$\int x\sec^4(a+b\log(cx^n))\,dx$$

$$= \frac{x^2\left(2e^{2ia}(i+bn)(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{bn},2-\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)-2i(1+b^2n^2)\,\text{Hypergec}\right.}{}$$

```
[In] Integrate[x*Sec[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x^2*(2*E^((2*I)*a)*(I + b*n)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - I/
(b*n), 2 - I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] - (2*I)*(1 + b^2*n^2)*Hy
pergeometric2F1[1, (-I)/(b*n), 1 - I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))]
+ Sec[a + b*Log[c*x^n]]^2*(-(b*n) + (1 + 2*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a
 + b*Log[c*x^n])])*Tan[a + b*Log[c*x^n]])))/(3*b^3*n^3)
```

Maple [F]

$$\int x\mathrm{sec}\left(a+b\ln\left(c\,x^{n}\right)\right)^{4}dx$$

```
[In] int(x*sec(a+b*ln(c*x^n))^4,x)
[Out] int(x*sec(a+b*ln(c*x^n))^4,x)
```

Fricas [F]

$$\int x\sec^{4}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{4}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^4,x, algorithm="fricas")
[Out] integral(x*sec(b*log(c*x^n) + a)^4, x)
```

Sympy [F]

$$\int x\sec^{4}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec^{4}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*sec(a+b*ln(c*x**n))**4,x)
[Out] Integral(x*sec(a + b*log(c*x**n))**4, x)
```

Maxima [F]

$$\int x\sec^{4}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{4}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^4,x, algorithm="maxima")
[Out] -4/3*(3*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x^2*cos(4*b*log(x^n)
+ 4*a)^2 + 3*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x^2*cos(2*b*log(
x^n) + 2*a)^2 + 3*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x^2*sin(4*b
*log(x^n) + 4*a)^2 + 3*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x^2*si
n(2*b*log(x^n) + 2*a)^2 + (b*n*cos(2*b*log(c)) - sin(2*b*log(c)))*x^2*cos(2
*b*log(x^n) + 2*a) - (b*n*sin(2*b*log(c)) + cos(2*b*log(c)))*x^2*sin(2*b*lo
g(x^n) + 2*a) + (((b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*si
n(4*b*log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*
b*log(c)))*x^2*cos(4*b*log(x^n) + 4*a) - (3*(b^2*cos(2*b*log(c))*sin(6*b*lo
```

g(c)) - b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(6*b*log(c))*cos(2
*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n + 2*cos(2*b*log(c))*sin(6
*b*log(c)) - 2*cos(6*b*log(c))*sin(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a)
 + ((b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))
*n + cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*x^2
*sin(4*b*log(x^n) + 4*a) + (3*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*si
n(6*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c)) - b
*cos(6*b*log(c))*sin(2*b*log(c)))*n + 2*cos(6*b*log(c))*cos(2*b*log(c)) + 2
*sin(6*b*log(c))*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*a) - (b^2*n^2*si
n(6*b*log(c)) + sin(6*b*log(c)))*x^2)*cos(6*b*log(x^n) + 6*a) - (3*(3*(b^2*
cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2
 - 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))
*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*x^2
*cos(2*b*log(x^n) + 2*a) - 3*(3*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*
sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + 2*(b*cos(2*b*log(c))*sin(4*b*log(c))
 - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) +
 sin(4*b*log(c))*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) + 2*a) + (3*b^2*n^2*
sin(4*b*log(c)) - b*n*cos(4*b*log(c)) + 2*sin(4*b*log(c)))*x^2)*cos(4*b*log
(x^n) + 4*a) + 18*(b^8*n^8 + b^6*n^6 + ((b^8*cos(6*b*log(c))^2 + b^8*sin(6*
b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*cos
(6*b*log(x^n) + 6*a)^2 + 9*((b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)
*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*cos(4*b*log(x^n
) + 4*a)^2 + 9*((b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*
cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6)*cos(2*b*log(x^n) + 2*a)^2 +
 ((b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c)
)^2 + b^6*sin(6*b*log(c))^2)*n^6)*sin(6*b*log(x^n) + 6*a)^2 + 9*((b^8*cos(4
*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*si
n(4*b*log(c))^2)*n^6)*sin(4*b*log(x^n) + 4*a)^2 + 9*((b^8*cos(2*b*log(c))^2
 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c)
)^2)*n^6)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^8*n^8*cos(6*b*log(c)) + b^6*n^6*
cos(6*b*log(c)) + 3*((b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log
(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(
6*b*log(c))*sin(4*b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) + 3*((b^8*cos(6*b
*log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*
cos(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)
*cos(2*b*log(x^n) + 2*a) + 3*((b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*co
s(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) -
 b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) + 3*((b^
8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^
8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(
c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(x^n) + 6*a) + 6*(b^8*n^8*cos
(4*b*log(c)) + b^6*n^6*cos(4*b*log(c)) + 3*((b^8*cos(4*b*log(c))*cos(2*b*lo
g(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*cos
(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) +
 2*a) + 3*((b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2

```
*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c)
)*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) +
6*(b^8*n^8*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*
a) - 2*(b^8*n^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)) + 3*((b^8*cos(4*b
*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*
cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)
*cos(4*b*log(x^n) + 4*a) + 3*((b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*co
s(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) -
 b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) - 3*((b^
8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^
8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(
c)))*n^6)*sin(4*b*log(x^n) + 4*a) - 3*((b^8*cos(6*b*log(c))*cos(2*b*log(c))
 + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*
log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a)
)*sin(6*b*log(x^n) + 6*a) - 6*(b^8*n^8*sin(4*b*log(c)) + b^6*n^6*sin(4*b*lo
g(c)) + 3*((b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2
*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c)
)*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) - 3*((b^8*cos(4*b*log(c))*c
os(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*lo
g(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*l
og(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 6*(b^8*n^8*sin(2*b*log(c)) + b^6*
n^6*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*integrate(1/9*(x*cos(2*b*log(
x^n) + 2*a)*sin(2*b*log(c)) + x*cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(2
*b^6*n^6*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^6*n^6*sin(2*b*log(c)
)*sin(2*b*log(x^n) + 2*a) + b^6*n^6 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*
log(c))^2)*n^6*cos(2*b*log(x^n) + 2*a)^2 + (b^6*cos(2*b*log(c))^2 + b^6*sin
(2*b*log(c))^2)*n^6*sin(2*b*log(x^n) + 2*a)^2), x) - (((b*cos(4*b*log(c))*s
in(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n + cos(6*b*log(c))*cos
(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*x^2*cos(4*b*log(x^n) + 4*a)
 + (3*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(c))*sin(2*b*lo
g(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b
*log(c)))*n + 2*cos(6*b*log(c))*cos(2*b*log(c)) + 2*sin(6*b*log(c))*sin(2*b
*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) - ((b*cos(6*b*log(c))*cos(4*b*log(c))
 + b*sin(6*b*log(c))*sin(4*b*log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) +
 cos(6*b*log(c))*sin(4*b*log(c)))*x^2*sin(4*b*log(x^n) + 4*a) + (3*(b^2*cos
(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 - (
b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n +
2*cos(2*b*log(c))*sin(6*b*log(c)) - 2*cos(6*b*log(c))*sin(2*b*log(c)))*x^2*
sin(2*b*log(x^n) + 2*a) + (b^2*n^2*cos(6*b*log(c)) + cos(6*b*log(c)))*x^2)*
sin(6*b*log(x^n) + 6*a) - (3*(3*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*
sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + 2*(b*cos(2*b*log(c))*sin(4*b*log(c))
 - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) +
 sin(4*b*log(c))*sin(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) + 3*(3*(b^2*c
os(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2 -
 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*
```

```
n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*x^2*
sin(2*b*log(x^n) + 2*a) + (3*b^2*n^2*cos(4*b*log(c)) + b*n*sin(4*b*log(c))
 + 2*cos(4*b*log(c)))*x^2)*sin(4*b*log(x^n) + 4*a))/(6*b^3*n^3*cos(2*b*log(c
))*cos(2*b*log(x^n) + 2*a) - 6*b^3*n^3*sin(2*b*log(c))*sin(2*b*log(x^n) + 2
*a) + b^3*n^3 + (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*log(c))^2)*n^3*cos(6*b
*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))^2 + b^3*sin(4*b*log(c))^2)*n^3*
cos(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b^3*sin(2*b*log(c))^
2)*n^3*cos(2*b*log(x^n) + 2*a)^2 + (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*log
(c))^2)*n^3*sin(6*b*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))^2 + b^3*sin(
4*b*log(c))^2)*n^3*sin(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b
^3*sin(2*b*log(c))^2)*n^3*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^3*n^3*cos(6*b*lo
g(c)) + 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(c))*sin(4*
b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(6*b*log(c))*cos(2*b*log
(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log(x^n) + 2*a) + 3
*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c))
)*n^3*sin(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(c))*sin(6*b*log(c)) - b^
3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*cos(6*b*log
(x^n) + 6*a) + 6*(b^3*n^3*cos(4*b*log(c)) + 3*(b^3*cos(4*b*log(c))*cos(2*b*
log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log(x^n) + 2*a)
 + 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(
c)))*n^3*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b^3*n^3*sin(
6*b*log(c)) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*
sin(4*b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(c))*sin(6
*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log(x^n) + 2*
a) - 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(c))*sin(4*b*l
og(c)))*n^3*sin(4*b*log(x^n) + 4*a) - 3*(b^3*cos(6*b*log(c))*cos(2*b*log(c)
) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*sin(6
*b*log(x^n) + 6*a) - 6*(b^3*n^3*sin(4*b*log(c)) + 3*(b^3*cos(2*b*log(c))*si
n(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log(x^n) +
 2*a) - 3*(b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*
b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int x\sec^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int x\sec\left(b\log\left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^4,x, algorithm="giac")
[Out] integrate(x*sec(b*log(c*x^n) + a)^4, x)
```

Mupad [F(-1)]

Timed out.

$$\int x\sec^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int\frac{x}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^4}\,dx$$

```
[In] int(x/cos(a + b*log(c*x^n))^4,x)
[Out] int(x/cos(a + b*log(c*x^n))^4, x)
```

3.255 $\int \sec^4(a+b\log(cx^n))\,dx$

Optimal result 2447
Rubi [A] (verified) 2447
Mathematica [B] (verified) 2448
Maple [F] 2449
Fricas [F] 2449
Sympy [F] 2449
Maxima [F] 2449
Giac [F] 2452
Mupad [F(-1)] 2453

Optimal result

Integrand size = 13, antiderivative size = 85

$$\int \sec^4(a+b\log(cx^n))\,dx = \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}$$

```
[Out] 16*exp(4*I*a)*x*(c*x^n)^(4*I*b)*hypergeom([4, 2-1/2*I/b/n],[3-1/2*I/b/n],-e
xp(2*I*a)*(c*x^n)^(2*I*b))/(1+4*I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4599, 4601, 371}

$$\int \sec^4(a+b\log(cx^n))\,dx = \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (16*E^((4*I)*a)*x*(c*x^n)^((4*I)*b)*Hypergeometric2F1[4, (4 - I/(b*n))/2, (
6 - I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + (4*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^4(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(16e^{4ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+4ib+\frac{1}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^4}\,dx,x,cx^n\right)}{n}\\ &= \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 213 vs. 2(85) = 170.

Time = 7.88 (sec) , antiderivative size = 213, normalized size of antiderivative = 2.51

$$\int \sec^4(a+b\log(cx^n))\,dx$$
$$= \frac{x\left(2e^{2ia}(i+2bn)(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bn},2-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)-2i(1+4b^2n^2)\,\text{Hyperg}\right.}{}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x*(2*E^((2*I)*a)*(I + 2*b*n)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - (I
/2)/(b*n), 2 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] - (2*I)*(1 + 4*b
^2*n^2)*Hypergeometric2F1[1, (-1/2*I)/(b*n), 1 - (I/2)/(b*n), -E^((2*I)*(a
+ b*Log[c*x^n]))] + Sec[a + b*Log[c*x^n]]^2*(-2*b*n + (1 + 8*b^2*n^2 + (1 +
 4*b^2*n^2)*Cos[2*(a + b*Log[c*x^n])])*Tan[a + b*Log[c*x^n]])))/(12*b^3*n^3
)
```

Maple [F]

$$\int \sec \left(a+b\ln \left(c\,x^{n}\right)\right)^{4}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^4,x)
[Out] int(sec(a+b*ln(c*x^n))^4,x)
```

Fricas [F]

$$\int \sec^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sec\left(b\log\left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^4, x)
```

Sympy [F]

$$\int \sec^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sec^4\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**4,x)
[Out] Integral(sec(a + b*log(c*x**n))**4, x)
```

Maxima [F]

$$\int \sec^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int \sec\left(b\log\left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4,x, algorithm="maxima")
[Out] -1/3*(6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x*cos(4*b*log(x^n) +
4*a)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x*cos(2*b*log(x^n)
 + 2*a)^2 + 6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x*sin(4*b*log(x
^n) + 4*a)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x*sin(2*b*lo
g(x^n) + 2*a)^2 + (2*b*n*cos(2*b*log(c)) - sin(2*b*log(c)))*x*cos(2*b*log(x
^n) + 2*a) - (2*b*n*sin(2*b*log(c)) + cos(2*b*log(c)))*x*sin(2*b*log(x^n) +
 2*a) + ((2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*
log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*b*log(
c)))*x*cos(4*b*log(x^n) + 4*a) - 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c))
```

- b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(6*b*log(c))*cos(2*b*log
(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c
)) - cos(6*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) + (2*(b*cos
(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n + cos(6
*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*x*sin(4*b*log
(x^n) + 4*a) + 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(
c))*sin(2*b*log(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*l
og(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c
))*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - (4*b^2*n^2*sin(6*b*log(c))
+ sin(6*b*log(c)))*x)*cos(6*b*log(x^n) + 6*a) - (3*(12*(b^2*cos(2*b*log(c))
*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2 - 4*(b*cos(4*b*
log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*lo
g(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n)
 + 2*a) - 3*(12*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*
sin(2*b*log(c)))*n^2 + 4*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log
(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))
*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + 2*(6*b^2*n^2*sin(4*b*log(c))
- b*n*cos(4*b*log(c)) + sin(4*b*log(c)))*x)*cos(4*b*log(x^n) + 4*a) + 9*(4*
b^8*n^8 + b^6*n^6 + (4*(b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8
+ (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*cos(6*b*log(x^n) + 6
a)^2 + 9(4*(b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos
(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*cos(4*b*log(x^n) + 4*a)^2 + 9*
(4*(b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c
))^2 + b^6*sin(2*b*log(c))^2)*n^6)*cos(2*b*log(x^n) + 2*a)^2 + (4*(b^8*cos(
6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*s
in(6*b*log(c))^2)*n^6)*sin(6*b*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(c)
)^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log
(c))^2)*n^6)*sin(4*b*log(x^n) + 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^8*
sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^
6)*sin(2*b*log(x^n) + 2*a)^2 + 2*(4*b^8*n^8*cos(6*b*log(c)) + b^6*n^6*cos(6
*b*log(c)) + 3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c)
)*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b
*log(c))*sin(4*b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(6*b*
log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*c
os(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*
cos(2*b*log(x^n) + 2*a) + 3*(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*c
os(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c))
- b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) + 3*(4*
(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))
*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*l
og(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(x^n) + 6*a) + 6*(4*b^8*n^
8*cos(4*b*log(c)) + b^6*n^6*cos(4*b*log(c)) + 3*(4*(b^8*cos(4*b*log(c))*cos
(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(
c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log
(x^n) + 2*a) + 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(

c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4
*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n)
+ 4*a) + 6*(4*b^8*n^8*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*cos(2*b*lo
g(x^n) + 2*a) - 2*(4*b^8*n^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)) + 3*
(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c
)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*
b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(2*b*log(c))*sin(6*b
*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*
sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n
) + 2*a) - 3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*
sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*l
og(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(6*b*lo
g(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos
(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*si
n(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(4*b^8*n^8*sin(4*b*log(c
)) + b^6*n^6*sin(4*b*log(c)) + 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) -
b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log
(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) -
3*(4*(b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log
(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(
2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 6*(4*b
^8*n^8*sin(2*b*log(c)) + b^6*n^6*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*
integrate(1/9*(cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*si
n(2*b*log(x^n) + 2*a))/(2*b^6*n^6*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) -
 2*b^6*n^6*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + b^6*n^6 + (b^6*cos(2*b
*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6*cos(2*b*log(x^n) + 2*a)^2 + (b^6*co
s(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6*sin(2*b*log(x^n) + 2*a)^2), x)
 - ((2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c
)))*n + cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*
x*cos(4*b*log(x^n) + 4*a) + 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2
*sin(6*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c))
- b*cos(6*b*log(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*log(c)) +
sin(6*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - (2*(b*cos(6*b*
log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n - cos(4*b*lo
g(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*b*log(c)))*x*sin(4*b*log(x^n)
 + 4*a) + 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*s
in(2*b*log(c)))*n^2 - (b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c)
)*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*si
n(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (4*b^2*n^2*cos(6*b*log(c)) + cos
(6*b*log(c)))*x)*sin(6*b*log(x^n) + 6*a) - (3*(12*(b^2*cos(4*b*log(c))*cos(
2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(2*b*log(c
))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))
*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*
a) + 3*(12*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2
*b*log(c)))*n^2 - 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*

```
sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(
2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + 2*(6*b^2*n^2*cos(4*b*log(c)) + b*n
*sin(4*b*log(c)) + cos(4*b*log(c)))*x)*sin(4*b*log(x^n) + 4*a))/(6*b^3*n^3*
cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 6*b^3*n^3*sin(2*b*log(c))*sin(2*b
*log(x^n) + 2*a) + b^3*n^3 + (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*log(c))^2
)*n^3*cos(6*b*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))^2 + b^3*sin(4*b*lo
g(c))^2)*n^3*cos(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b^3*sin
(2*b*log(c))^2)*n^3*cos(2*b*log(x^n) + 2*a)^2 + (b^3*cos(6*b*log(c))^2 + b^
3*sin(6*b*log(c))^2)*n^3*sin(6*b*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))
^2 + b^3*sin(4*b*log(c))^2)*n^3*sin(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*
log(c))^2 + b^3*sin(2*b*log(c))^2)*n^3*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^3*n
^3*cos(6*b*log(c)) + 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*l
og(c))*sin(4*b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(6*b*log(c)
)*cos(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log(x^
n) + 2*a) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*si
n(4*b*log(c)))*n^3*sin(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(c))*sin(6*b
*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a)
)*cos(6*b*log(x^n) + 6*a) + 6*(b^3*n^3*cos(4*b*log(c)) + 3*(b^3*cos(4*b*log
(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*log
(x^n) + 2*a) + 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))
*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*
(b^3*n^3*sin(6*b*log(c)) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos
(6*b*log(c))*sin(4*b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*
log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b*
log(x^n) + 2*a) - 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(
c))*sin(4*b*log(c)))*n^3*sin(4*b*log(x^n) + 4*a) - 3*(b^3*cos(6*b*log(c))*c
os(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n)
+ 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(b^3*n^3*sin(4*b*log(c)) + 3*(b^3*cos(2
*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3*cos(2
*b*log(x^n) + 2*a) - 3*(b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*l
og(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a
))
```

Giac [F]

$$\int \sec^4(a + b\log(cx^n)) \, dx = \int \sec(b\log(cx^n) + a)^4 \, dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^4, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^4(a+b\log(cx^n))\,dx=\int \frac{1}{\cos(a+b\,\ln(c\,x^n))^4}\,dx$$

```
[In] int(1/cos(a + b*log(c*x^n))^4,x)
[Out] int(1/cos(a + b*log(c*x^n))^4, x)
```

3.256 $\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx$

Optimal result . . . 2454
Rubi [A] (verified) . . . 2454
Mathematica [A] (verified) . . . 2455
Maple [A] (verified) . . . 2455
Fricas [A] (verification not implemented) . . . 2455
Sympy [F] . . . 2456
Maxima [B] (verification not implemented) . . . 2456
Giac [F] . . . 2457
Mupad [B] (verification not implemented) . . . 2457

Optimal result

Integrand size = 17, antiderivative size = 42

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx=\frac{\tan(a+b\log(cx^n))}{bn}+\frac{\tan^3(a+b\log(cx^n))}{3bn}$$

```
[Out] tan(a+b*ln(c*x^n))/b/n+1/3*tan(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 42, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {3852}

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx=\frac{\tan^3(a+b\log(cx^n))}{3bn}+\frac{\tan(a+b\log(cx^n))}{bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^4/x,x]
[Out] Tan[a + b*Log[c*x^n]]/(b*n) + Tan[a + b*Log[c*x^n]]^3/(3*b*n)
```

Rule 3852

```
Int[csc[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
ndIntegrand[(1 + x^2)^(n/2 - 1), x], x], x, Cot[c + d*x]], x] /; FreeQ[{c,
d}, x] && IGtQ[n/2, 0]
```

Rubi steps

$$\begin{aligned}\text{integral}&=\frac{\text{Subst}\left(\int \sec^4(a+bx)\,dx,x,\log(cx^n)\right)}{n}\\&=-\frac{\text{Subst}\left(\int (1+x^2)\,dx,x,-\tan(a+b\log(cx^n))\right)}{bn}\\&=\frac{\tan(a+b\log(cx^n))}{bn}+\frac{\tan^3(a+b\log(cx^n))}{3bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.86

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx=\frac{\tan(a+b\log(cx^n))+\frac{1}{3}\tan^3(a+b\log(cx^n))}{bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^4/x,x]
```

```
[Out] (Tan[a + b*Log[c*x^n]] + Tan[a + b*Log[c*x^n]]^3/3)/(b*n)
```

Maple [A] (verified)

Time = 16.93 (sec) , antiderivative size = 37, normalized size of antiderivative = 0.88

method	result
derivativedivides	$-\frac{\left(-\frac{2}{3}-\frac{\sec(a+b\ln(c\,x^n))^2}{3}\right)\tan(a+b\ln(c\,x^n))}{nb}$
default	$-\frac{\left(-\frac{2}{3}-\frac{\sec(a+b\ln(c\,x^n))^2}{3}\right)\tan(a+b\ln(c\,x^n))}{nb}$
parallelrisch	$\frac{-6\tan\left(\frac{a}{2}+b\ln(\sqrt{c\,x^n})\right)^5+4\tan\left(\frac{a}{2}+b\ln(\sqrt{c\,x^n})\right)^3-6\tan\left(\frac{a}{2}+b\ln(\sqrt{c\,x^n})\right)}{3bn\left(\tan\left(\frac{a}{2}+b\ln(\sqrt{c\,x^n})\right)-1\right)^3\left(\tan\left(\frac{a}{2}+b\ln(\sqrt{c\,x^n})\right)+1\right)^3}$
risch	$\frac{4i\left(3(x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}\mathrm{e}^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}\mathrm{e}^{2ia}+\right.}{3bn\left((x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}\mathrm{e}^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}\mathrm{e}^{2ia}+1\right.}$

```
[In] int(sec(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)
```

```
[Out] -1/n/b*(-2/3-1/3*sec(a+b*ln(c*x^n))^2)*tan(a+b*ln(c*x^n))
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 52, normalized size of antiderivative = 1.24

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx = \frac{\left(2\cos(bn\log(x)+b\log(c)+a)^2+1\right)\sin(bn\log(x)+b\log(c)+a)}{3\,bn\cos(bn\log(x)+b\log(c)+a)^3}$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x,x, algorithm="fricas")
```

```
[Out] 1/3*(2*cos(b*n*log(x) + b*log(c) + a)^2 + 1)*sin(b*n*log(x) + b*log(c) + a)
/(b*n*cos(b*n*log(x) + b*log(c) + a)^3)
```

Sympy [F]

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx = \int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**4/x,x)
[Out] Integral(sec(a + b*log(c*x**n))**4/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1323 vs. $2(40) = 80$.

Time = 0.23 (sec) , antiderivative size = 1323, normalized size of antiderivative = 31.50

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x,x, algorithm="maxima")
[Out] 4/3*((3*(cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))
*cos(2*b*log(x^n) + 2*a) - 3*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log
(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(6*b*log(c)))*cos(6*b*lo
g(x^n) + 6*a) + 3*(3*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin
(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 3*(cos(4*b*log(c))*cos(2*b*log(c))
+ sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(4*b*log(c)
))*cos(4*b*log(x^n) + 4*a) + (3*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*
log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 3*(cos(2*b*log(c))*sin(6
*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos
(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) + 3*(3*(cos(4*b*log(c))*cos(2*b*log(c
)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 3*(cos(2*b*
log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n)
 + 2*a) + cos(4*b*log(c)))*sin(4*b*log(x^n) + 4*a))/((b*cos(6*b*log(c))^2 +
 b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2
+ b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 + 6*b*n*cos(2*b*log(c))*
cos(2*b*log(x^n) + 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*c
os(2*b*log(x^n) + 2*a)^2 + (b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2)*n*si
n(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*s
in(4*b*log(x^n) + 4*a)^2 - 6*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) +
9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 +
 b*n + 2*(b*n*cos(6*b*log(c)) + 3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*si
n(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) + 3*(b*cos(6*b*log
(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n
) + 2*a) + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b
*log(c)))*n*sin(4*b*log(x^n) + 4*a) + 3*(b*cos(2*b*log(c))*sin(6*b*log(c))
```

```
- b*cos(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(6*b*log
(x^n) + 6*a) + 6*(b*n*cos(4*b*log(c)) + 3*(b*cos(4*b*log(c))*cos(2*b*log(c)
) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) + 3*(b*cos
(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b
*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(3*(b*cos(4*b*log(c))*sin(6*b
*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) + 3
*(b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*
cos(2*b*log(x^n) + 2*a) + b*n*sin(6*b*log(c)) - 3*(b*cos(6*b*log(c))*cos(4*
b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) -
3*(b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n
*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(3*(b*cos(2*b*log(c))
*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) +
2*a) + b*n*sin(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4
*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4
*a))
```

Giac [F]

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx=\int \frac{\sec(b\log(cx^n)+a)^4}{x}\,dx$$

[In] integrate(sec(a+b*log(c*x^n))^4/x,x, algorithm="giac")

[Out] integrate(sec(b*log(c*x^n) + a)^4/x, x)

Mupad [B] (verification not implemented)

Time = 38.04 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.17

$$\int \frac{\sec^4(a+b\log(cx^n))}{x}\,dx=\frac{4\left(e^{a\,2i}\,(c\,x^n)^{b\,2i}\,3i+1i\right)}{3\,b\,n\left(e^{a\,2i}\,(c\,x^n)^{b\,2i}+1\right)^3}$$

[In] int(1/(x*cos(a + b*log(c*x^n))^4),x)

[Out] (4*(exp(a*2i)*(c*x^n)^(b*2i)*3i + 1i))/(3*b*n*(exp(a*2i)*(c*x^n)^(b*2i) + 1
)^3)

3.257 $\int \frac{\sec^4(a+b\log(cx^n))}{x^2}\,dx$

Optimal result . . . 2458
Rubi [A] (verified) . . . 2458
Mathematica [B] (verified) . . . 2459
Maple [F] . . . 2460
Fricas [F] . . . 2460
Sympy [F] . . . 2460
Maxima [F] . . . 2460
Giac [F] . . . 2464
Mupad [F(-1)] . . . 2464

Optimal result

Integrand size = 17, antiderivative size = 87

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{16e^{4ia}(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4+\frac{i}{bn}\right),\frac{1}{2}\left(6+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(1-4ibn)x}$$

```
[Out] -16*exp(4*I*a)*(c*x^n)^(4*I*b)*hypergeom([4, 2+1/2*I/b/n],[3+1/2*I/b/n],-ex
p(2*I*a)*(c*x^n)^(2*I*b))/(1-4*I*b*n)/x
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 87, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^2}\,dx = -\frac{16e^{4ia}(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4+\frac{i}{bn}\right),\frac{1}{2}\left(6+\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{x(1-4ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^4/x^2,x]
```

```
[Out] (-16*E^((4*I)*a)*(c*x^n)^((4*I)*b)*Hypergeometric2F1[4, (4 + I/(b*n))/2, (6
 + I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - (4*I)*b*n)*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{(cx^n)^{\frac{1}{n}} \operatorname{Subst}\left(\int x^{-1-\frac{1}{n}} \sec^4(a+b\log(x))\,dx, x, cx^n\right)}{nx} \\
&= \frac{\left(16e^{4ia}(cx^n)^{\frac{1}{n}}\right) \operatorname{Subst}\left(\int \frac{x^{-1+4ib-\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^4}\,dx, x, cx^n\right)}{nx} \\
&= -\frac{16e^{4ia}(cx^n)^{4ib} \text{Hypergeometric2F1}\left(4, \frac{1}{2}\left(4+\frac{i}{bn}\right), \frac{1}{2}\left(6+\frac{i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(1-4ibn)x}
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 215 vs. $2(87) = 174$.

Time = 7.00 (sec) , antiderivative size = 215, normalized size of antiderivative = 2.47

$$
\int \frac{\sec^4(a+b\log(cx^n))}{x^2}\,dx = \frac{-2e^{2ia}(-i+2bn)(cx^n)^{2ib} \text{Hypergeometric2F1}\left(1, 1+\frac{i}{2bn}, 2+\frac{i}{2bn}, -e^{2i(a+b\log(cx^n))}\right) - 2i(1+4b^2n^2)\,\text{Hype}}{}
$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^4/x^2,x]
```

```
[Out] (-2*E^((2*I)*a)*(-I + 2*b*n)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 + (I/
2)/(b*n), 2 + (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] - (2*I)*(1 + 4*b^
```

```
2*n^2)*Hypergeometric2F1[1, (I/2)/(b*n), 1 + (I/2)/(b*n), -E^((2*I)*(a + b*
Log[c*x^n]))] + Sec[a + b*Log[c*x^n]]^2*(2*b*n + (1 + 8*b^2*n^2 + (1 + 4*b^
2*n^2)*Cos[2*(a + b*Log[c*x^n])])*Tan[a + b*Log[c*x^n]]))/(12*b^3*n^3*x)
```

Maple [F]

$$\int \frac{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{4}}{x^{2}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^4/x^2,x)
[Out] int(sec(a+b*ln(c*x^n))^4/x^2,x)
```

Fricas [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^4}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^2,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^4/x^2, x)
```

Sympy [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**4/x**2,x)
[Out] Integral(sec(a + b*log(c*x**n))**4/x**2, x)
```

Maxima [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^2}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^4}{x^2}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^2,x, algorithm="maxima")
[Out] 1/3*(6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a
)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*
a)^2 + 6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4
*a)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) +
```

2*a)^2 + (4*b^2*n^2*sin(6*b*log(c)) + (2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n + cos(4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + (2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n - cos(6*b*log(c))*cos(4*b*log(c)) - sin(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) - 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(6*b*log(c)))*cos(6*b*log(x^n) + 6*a) + (12*b^2*n^2*sin(4*b*log(c)) + 2*b*n*cos(4*b*log(c)) + 3*(12*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 3*(12*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 - 4*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + 2*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + (2*b*n*cos(2*b*log(c)) + sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 9*((4*(b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*x*cos(6*b*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*x*cos(4*b*log(x^n) + 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6)*x*cos(2*b*log(x^n) + 2*a)^2 + (4*(b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*x*sin(6*b*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*x*sin(4*b*log(x^n) + 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6)*x*sin(2*b*log(x^n) + 2*a)^2 + 6*(4*b^8*n^8*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - 6*(4*b^8*n^8*sin(2*b*log(c)) + b^6*n^6*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (4*b^8*n^8 + b^6*n^6)*x + 2*(3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^6)*x*cos(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(6*b*log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*x*cos(2*b*log(x^n) + 2*a) + 3*(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*x*sin(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*l

og(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*x*sin(2*b*log(x^n) + 2*a
) + (4*b^8*n^8*cos(6*b*log(c)) + b^6*n^6*cos(6*b*log(c)))*x)*cos(6*b*log(x^
n) + 6*a) + 6*(3*(4*(b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(
c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4
*b*log(c))*sin(2*b*log(c)))*n^6)*x*cos(2*b*log(x^n) + 2*a) + 3*(4*(b^8*cos(
2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b
^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n
^6)*x*sin(2*b*log(x^n) + 2*a) + (4*b^8*n^8*cos(4*b*log(c)) + b^6*n^6*cos(4*
b*log(c)))*x)*cos(4*b*log(x^n) + 4*a) - 2*(3*(4*(b^8*cos(4*b*log(c))*sin(6*
b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))
*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*x*cos(4*b*log(
x^n) + 4*a) + 3*(4*(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c
))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*
b*log(c))*sin(2*b*log(c)))*n^6)*x*cos(2*b*log(x^n) + 2*a) - 3*(4*(b^8*cos(6
*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^
6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^
6)*x*sin(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(6*b*log(c))*cos(2*b*log(c)) +
b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log
(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*x*sin(2*b*log(x^n) + 2*a)
+ (4*b^8*n^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)))*x)*sin(6*b*log(x^n)
 + 6*a) - 6*(3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c)
)*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b
*log(c))*sin(2*b*log(c)))*n^6)*x*cos(2*b*log(x^n) + 2*a) - 3*(4*(b^8*cos(4*
b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6
*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6
)*x*sin(2*b*log(x^n) + 2*a) + (4*b^8*n^8*sin(4*b*log(c)) + b^6*n^6*sin(4*b*
log(c)))*x)*sin(4*b*log(x^n) + 4*a))*integrate(1/9*(cos(2*b*log(x^n) + 2*a)
*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(2*b^6*n^6*x^2*
cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^6*n^6*x^2*sin(2*b*log(c))*sin
(2*b*log(x^n) + 2*a) + b^6*n^6*x^2 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*l
og(c))^2)*n^6*x^2*cos(2*b*log(x^n) + 2*a)^2 + (b^6*cos(2*b*log(c))^2 + b^6*
sin(2*b*log(c))^2)*n^6*x^2*sin(2*b*log(x^n) + 2*a)^2), x) + (4*b^2*n^2*cos(
6*b*log(c)) - (2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin
(4*b*log(c)))*n - cos(6*b*log(c))*cos(4*b*log(c)) - sin(6*b*log(c))*sin(4*b
*log(c)))*cos(4*b*log(x^n) + 4*a) + 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c
)) + b^2*sin(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(2*b*log(c))*sin(6*b*
log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*lo
g(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + (2*(b*co
s(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n + cos(
4*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(
x^n) + 4*a) + 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c
))*sin(2*b*log(c)))*n^2 + (b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*lo
g(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c)
)*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(6*b*log(c)))*sin(6*b*log(x
^n) + 6*a) + (12*b^2*n^2*cos(4*b*log(c)) - 2*b*n*sin(4*b*log(c)) + 3*(12*(b

```
^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n
^2 - 4*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c
)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*
cos(2*b*log(x^n) + 2*a) + 3*(12*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*
cos(4*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(4*b*log(c))*cos(2*b*log(c))
 + b*sin(4*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) -
 cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + 2*cos(4*b*log(c
)))*sin(4*b*log(x^n) + 4*a) - (2*b*n*sin(2*b*log(c)) - cos(2*b*log(c)))*sin
(2*b*log(x^n) + 2*a))/(6*b^3*n^3*x*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a)
- 6*b^3*n^3*x*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + b^3*n^3*x + (b^3*co
s(6*b*log(c))^2 + b^3*sin(6*b*log(c))^2)*n^3*x*cos(6*b*log(x^n) + 6*a)^2 +
9*(b^3*cos(4*b*log(c))^2 + b^3*sin(4*b*log(c))^2)*n^3*x*cos(4*b*log(x^n) +
4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b^3*sin(2*b*log(c))^2)*n^3*x*cos(2*b*lo
g(x^n) + 2*a)^2 + (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*log(c))^2)*n^3*x*sin
(6*b*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))^2 + b^3*sin(4*b*log(c))^2)*
n^3*x*sin(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b^3*sin(2*b*lo
g(c))^2)*n^3*x*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^3*n^3*x*cos(6*b*log(c)) + 3
*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(c))*sin(4*b*log(c))
)*n^3*x*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(6*b*log(c))*cos(2*b*log(c)) +
b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*x*cos(2*b*log(x^n) + 2*a) + 3*(b^3
*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)))*n^3
*x*sin(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(c))*sin(6*b*log(c)) - b^3*c
os(6*b*log(c))*sin(2*b*log(c)))*n^3*x*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(
x^n) + 6*a) + 6*(b^3*n^3*x*cos(4*b*log(c)) + 3*(b^3*cos(4*b*log(c))*cos(2*b
*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*x*cos(2*b*log(x^n) + 2*
a) + 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*l
og(c)))*n^3*x*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 2*(b^3*n^3
*x*sin(6*b*log(c)) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*l
og(c))*sin(4*b*log(c)))*n^3*x*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(
c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*x*cos(2*b*lo
g(x^n) + 2*a) - 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(c)
)*sin(4*b*log(c)))*n^3*x*sin(4*b*log(x^n) + 4*a) - 3*(b^3*cos(6*b*log(c))*c
os(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*x*sin(2*b*log(x^n
) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(b^3*n^3*x*sin(4*b*log(c)) + 3*(b^3*c
os(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^3*x
*cos(2*b*log(x^n) + 2*a) - 3*(b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*sin
(4*b*log(c))*sin(2*b*log(c)))*n^3*x*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^
n) + 4*a))
```

Giac [F]

$$\int \frac{\sec^4(a + b\log(cx^n))}{x^2} dx = \int \frac{\sec(b\log(cx^n) + a)^4}{x^2} dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^2,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^4/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^4(a + b\log(cx^n))}{x^2} dx = \int \frac{1}{x^2 \cos(a + b\ln(c x^n))^4} dx$$

```
[In] int(1/(x^2*cos(a + b*log(c*x^n))^4),x)
[Out] int(1/(x^2*cos(a + b*log(c*x^n))^4), x)
```

3.258 $\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx$

Optimal result . . . 2465
Rubi [A] (verified) . . . 2465
Mathematica [B] (verified) . . . 2466
Maple [F] . . . 2467
Fricas [F] . . . 2467
Sympy [F] . . . 2467
Maxima [F] . . . 2467
Giac [F] . . . 2471
Mupad [F(-1)] . . . 2471

Optimal result

Integrand size = 17, antiderivative size = 79

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{8e^{4ia}(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,2+\frac{i}{bn},3+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{(1-2ibn)x^2}$$

```
[Out] -8*exp(4*I*a)*(c*x^n)^(4*I*b)*hypergeom([4, 2+I/b/n],[3+I/b/n],-exp(2*I*a)*
(c*x^n)^(2*I*b))/(1-2*I*b*n)/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 79, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx = -\frac{8e^{4ia}(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,2+\frac{i}{bn},3+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{x^2(1-2ibn)}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^4/x^3,x]
```

```
[Out] (-8*E^((4*I)*a)*(c*x^n)^((4*I)*b)*Hypergeometric2F1[4, 2 + I/(b*n), 3 + I/(
b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((1 - (2*I)*b*n)*x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\sec^4(a+b\log(x))\,dx,x,cx^n\right)}{nx^2}\\ &= \frac{\left(16e^{4ia}(cx^n)^{2/n}\right)\text{Subst}\left(\int \frac{x^{-1+4ib-\frac{2}{n}}}{(1+e^{2ia}x^{2ib})^4}\,dx,x,cx^n\right)}{nx^2}\\ &= -\frac{8e^{4ia}(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,2+\frac{i}{bn},3+\frac{i}{bn},-e^{2ia}(cx^n)^{2ib}\right)}{(1-2ibn)x^2}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 203 vs. 2(79) = 158.

Time = 7.06 (sec) , antiderivative size = 203, normalized size of antiderivative = 2.57

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx = \frac{-2e^{2ia}(-i+bn)(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1+\frac{i}{bn},2+\frac{i}{bn},-e^{2i(a+b\log(cx^n))}\right)-2i(1+b^2n^2)\,\text{Hypergeon}}{}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^4/x^3,x]
```

```
[Out] (-2*E^((2*I)*a)*(-I + b*n)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 + I/(b*
n), 2 + I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] - (2*I)*(1 + b^2*n^2)*Hyper
```

```
geometric2F1[1, I/(b*n), 1 + I/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] + Sec[
a + b*Log[c*x^n]]^2*(b*n + (1 + 2*b^2*n^2 + (1 + b^2*n^2)*Cos[2*(a + b*Log[
c*x^n])])*Tan[a + b*Log[c*x^n]]))/(3*b^3*n^3*x^2)
```

Maple [F]

$$\int \frac{\sec \left(a+b\ln \left(c\,x^{n}\right)\right)^{4}}{x^{3}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^4/x^3,x)
[Out] int(sec(a+b*ln(c*x^n))^4/x^3,x)
```

Fricas [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^4}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^3,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^4/x^3, x)
```

Sympy [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**4/x**3,x)
[Out] Integral(sec(a + b*log(c*x**n))**4/x**3, x)
```

Maxima [F]

$$\int \frac{\sec^4\left(a+b\log\left(cx^n\right)\right)}{x^3}\,dx=\int \frac{\sec\left(b\log\left(cx^n\right)+a\right)^4}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^3,x, algorithm="maxima")
[Out] 4/3*(3*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a
)^2 + 3*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*
a)^2 + 3*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4
*a)^2 + 3*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) +
```

2*a)^2 + (b^2*n^2*sin(6*b*log(c)) + ((b*cos(6*b*log(c))*cos(4*b*log(c)) + b
*sin(6*b*log(c))*sin(4*b*log(c)))*n + cos(4*b*log(c))*sin(6*b*log(c)) - cos
(6*b*log(c))*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + (3*(b^2*cos(2*b*log
(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(6*
b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n + 2*cos(2*
b*log(c))*sin(6*b*log(c)) - 2*cos(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(
x^n) + 2*a) + ((b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4
*b*log(c)))*n - cos(6*b*log(c))*cos(4*b*log(c)) - sin(6*b*log(c))*sin(4*b*l
og(c)))*sin(4*b*log(x^n) + 4*a) - (3*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) +
 b^2*sin(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(2*b*log(c))*sin(6*b*log(
c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n + 2*cos(6*b*log(c))*cos(2*b*log(
c)) + 2*sin(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(6*b*
log(c)))*cos(6*b*log(x^n) + 6*a) + (3*b^2*n^2*sin(4*b*log(c)) + b*n*cos(4*b
log(c)) + 3(3*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*
sin(2*b*log(c)))*n^2 + 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log
(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))
*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 3*(3*(b^2*cos(4*b*log(c))*cos(2
*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 - 2*(b*cos(2*b*log(c)
)*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*
cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a)
 + 2*sin(4*b*log(c)))*cos(4*b*log(x^n) + 4*a) + (b*n*cos(2*b*log(c)) + sin(2
*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 18*(((b^8*cos(6*b*log(c))^2 + b^8*sin
(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*
x^2*cos(6*b*log(x^n) + 6*a)^2 + 9*((b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log
(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*x^2*cos(
4*b*log(x^n) + 4*a)^2 + 9*((b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*
n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6)*x^2*cos(2*b*log(
x^n) + 2*a)^2 + ((b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6
*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*x^2*sin(6*b*log(x^n) + 6*a
)^2 + 9*((b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b
*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*x^2*sin(4*b*log(x^n) + 4*a)^2 + 9*
((b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))
^2 + b^6*sin(2*b*log(c))^2)*n^6)*x^2*sin(2*b*log(x^n) + 2*a)^2 + 6*(b^8*n^8
*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*x^2*cos(2*b*log(x^n) + 2*a) - 6
*(b^8*n^8*sin(2*b*log(c)) + b^6*n^6*sin(2*b*log(c)))*x^2*sin(2*b*log(x^n) +
 2*a) + (b^8*n^8 + b^6*n^6)*x^2 + 2*(3*((b^8*cos(6*b*log(c))*cos(4*b*log(c)
) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b
*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^6)*x^2*cos(4*b*log(x^n) +
 4*a) + 3*((b^8*cos(6*b*log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2
*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c)
)*sin(2*b*log(c)))*n^6)*x^2*cos(2*b*log(x^n) + 2*a) + 3*((b^8*cos(4*b*log(c
))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*
b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*x^2*s
in(4*b*log(x^n) + 4*a) + 3*((b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(
6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b

```
^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*x^2*sin(2*b*log(x^n) + 2*a) + (b^8
*n^8*cos(6*b*log(c)) + b^6*n^6*cos(6*b*log(c)))*x^2)*cos(6*b*log(x^n) + 6*a
) + 6*(3*((b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*
b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))
*sin(2*b*log(c)))*n^6)*x^2*cos(2*b*log(x^n) + 2*a) + 3*((b^8*cos(2*b*log(c)
)*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b
*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6)*x^2*si
n(2*b*log(x^n) + 2*a) + (b^8*n^8*cos(4*b*log(c)) + b^6*n^6*cos(4*b*log(c)))
*x^2)*cos(4*b*log(x^n) + 4*a) - 2*(3*((b^8*cos(4*b*log(c))*sin(6*b*log(c))
- b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*l
og(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*x^2*cos(4*b*log(x^n) + 4
*a) + 3*((b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b
*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*
sin(2*b*log(c)))*n^6)*x^2*cos(2*b*log(x^n) + 2*a) - 3*((b^8*cos(6*b*log(c))
*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*
log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^6)*x^2*sin
(4*b*log(x^n) + 4*a) - 3*((b^8*cos(6*b*log(c))*cos(2*b*log(c)) + b^8*sin(6*
b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log(c)) + b^6
*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*x^2*sin(2*b*log(x^n) + 2*a) + (b^8*n
^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)))*x^2)*sin(6*b*log(x^n) + 6*a)
- 6*(3*((b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2*b*
log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*s
in(2*b*log(c)))*n^6)*x^2*cos(2*b*log(x^n) + 2*a) - 3*((b^8*cos(4*b*log(c))*
cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*l
og(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*x^2*sin(
2*b*log(x^n) + 2*a) + (b^8*n^8*sin(4*b*log(c)) + b^6*n^6*sin(4*b*log(c)))*x
^2)*sin(4*b*log(x^n) + 4*a))*integrate(1/9*(cos(2*b*log(x^n) + 2*a)*sin(2*b
*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(2*b^6*n^6*x^3*cos(2*b*
log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^6*n^6*x^3*sin(2*b*log(c))*sin(2*b*log
(x^n) + 2*a) + b^6*n^6*x^3 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2
)*n^6*x^3*cos(2*b*log(x^n) + 2*a)^2 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*
log(c))^2)*n^6*x^3*sin(2*b*log(x^n) + 2*a)^2), x) + (b^2*n^2*cos(6*b*log(c)
) - ((b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c))
)*n - cos(6*b*log(c))*cos(4*b*log(c)) - sin(6*b*log(c))*sin(4*b*log(c)))*co
s(4*b*log(x^n) + 4*a) + (3*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6
*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*co
s(6*b*log(c))*sin(2*b*log(c)))*n + 2*cos(6*b*log(c))*cos(2*b*log(c)) + 2*si
n(6*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + ((b*cos(6*b*log(c)
)*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n + cos(4*b*log(c))*
sin(6*b*log(c)) - cos(6*b*log(c))*sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a)
+ (3*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(2*b*log
(c)))*n^2 + (b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*
log(c)))*n + 2*cos(2*b*log(c))*sin(6*b*log(c)) - 2*cos(6*b*log(c))*sin(2*b*
log(c)))*sin(2*b*log(x^n) + 2*a) + cos(6*b*log(c)))*sin(6*b*log(x^n) + 6*a)
 + (3*b^2*n^2*cos(4*b*log(c)) - b*n*sin(4*b*log(c)) + 3*(3*(b^2*cos(4*b*log
```

```
(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 - 2*(b*cos(
2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*
b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^
n) + 2*a) + 3*(3*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))
*sin(2*b*log(c)))*n^2 + 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*lo
g(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c)
)*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + 2*cos(4*b*log(c)))*sin(4*b*log
(x^n) + 4*a) - (b*n*sin(2*b*log(c)) - cos(2*b*log(c)))*sin(2*b*log(x^n) + 2
*a))/(6*b^3*n^3*x^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 6*b^3*n^3*x^2
*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + b^3*n^3*x^2 + (b^3*cos(6*b*log(c
))^2 + b^3*sin(6*b*log(c))^2)*n^3*x^2*cos(6*b*log(x^n) + 6*a)^2 + 9*(b^3*co
s(4*b*log(c))^2 + b^3*sin(4*b*log(c))^2)*n^3*x^2*cos(4*b*log(x^n) + 4*a)^2
+ 9*(b^3*cos(2*b*log(c))^2 + b^3*sin(2*b*log(c))^2)*n^3*x^2*cos(2*b*log(x^n
) + 2*a)^2 + (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*log(c))^2)*n^3*x^2*sin(6*
b*log(x^n) + 6*a)^2 + 9*(b^3*cos(4*b*log(c))^2 + b^3*sin(4*b*log(c))^2)*n^3
*x^2*sin(4*b*log(x^n) + 4*a)^2 + 9*(b^3*cos(2*b*log(c))^2 + b^3*sin(2*b*log
(c))^2)*n^3*x^2*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^3*n^3*x^2*cos(6*b*log(c))
+ 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6*b*log(c))*sin(4*b*log(
c)))*n^3*x^2*cos(4*b*log(x^n) + 4*a) + 3*(b^3*cos(6*b*log(c))*cos(2*b*log(c
)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*x^2*cos(2*b*log(x^n) + 2*a) +
 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c
)))*n^3*x^2*sin(4*b*log(x^n) + 4*a) + 3*(b^3*cos(2*b*log(c))*sin(6*b*log(c)
) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*x^2*sin(2*b*log(x^n) + 2*a))*c
os(6*b*log(x^n) + 6*a) + 6*(b^3*n^3*x^2*cos(4*b*log(c)) + 3*(b^3*cos(4*b*lo
g(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*x^2*cos(2*
b*log(x^n) + 2*a) + 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*lo
g(c))*sin(2*b*log(c)))*n^3*x^2*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) +
4*a) - 2*(b^3*n^3*x^2*sin(6*b*log(c)) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(
c)) - b^3*cos(6*b*log(c))*sin(4*b*log(c)))*n^3*x^2*cos(4*b*log(x^n) + 4*a)
+ 3*(b^3*cos(2*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(
c)))*n^3*x^2*cos(2*b*log(x^n) + 2*a) - 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c
)) + b^3*sin(6*b*log(c))*sin(4*b*log(c)))*n^3*x^2*sin(4*b*log(x^n) + 4*a) -
 3*(b^3*cos(6*b*log(c))*cos(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c
)))*n^3*x^2*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(b^3*n^3*x
^2*sin(4*b*log(c)) + 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*l
og(c))*sin(2*b*log(c)))*n^3*x^2*cos(2*b*log(x^n) + 2*a) - 3*(b^3*cos(4*b*lo
g(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*x^2*sin(2*
b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\sec(b\log(cx^n)+a)^4}{x^3}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^4/x^3,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^4/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^4(a+b\log(cx^n))}{x^3}\,dx = \int \frac{1}{x^3\cos(a+b\,\ln(c\,x^n))^4}\,dx$$

```
[In] int(1/(x^3*cos(a + b*log(c*x^n))^4),x)
[Out] int(1/(x^3*cos(a + b*log(c*x^n))^4), x)
```

3.259 $\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a-\right.\right.$

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Optimal result

Integrand size = 44, antiderivative size = 41

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx = -x\sec\left(a+b\log\left(cx^n\right)\right)+bnx\sec\left(a+b\log\left(cx^n\right)\right)\tan\left(a+b\log\left(cx^n\right)\right)$$

```
[Out] -x*sec(a+b*ln(c*x^n))+b*n*x*sec(a+b*ln(c*x^n))*tan(a+b*ln(c*x^n))
```

Rubi [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.16 (sec) , antiderivative size = 175, normalized size of antiderivative = 4.27, number of steps used = 7, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.068, Rules used = {4599, 4601, 371}

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx = \frac{16e^{3ia}b^2n^2x\left(cx^n\right)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),-e^{2ia}\left(cx^n\right)^{2ib}\right)}{1+3ibn} -2e^{ia}x(1-ibn)\left(cx^n\right)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),-e^{2ia}\left(cx^n\right)^{2ib}\right)$$

```
[In] Int[-((1 + b^2*n^2)*Sec[a + b*Log[c*x^n]]) + 2*b^2*n^2*Sec[a + b*Log[c*x^n]
]^3,x]
```

```
[Out] -2*E^(I*a)*(1 - I*b*n)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - I/(b*n))/2
, (3 - I/(b*n))/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] + (16*b^2*E^((3*I)*a)*
n^2*x*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 - I/(b*n))/2, (5 - I/(b*n))
/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(1 + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= (2b^2n^2)\int \sec^3(a+b\log(cx^n))\,dx + (-1-b^2n^2)\int \sec(a+b\log(cx^n))\,dx \\
&= \left(2b^2nx(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^3(a+b\log(x))\,dx,x,cx^n\right) \\
&\quad+\frac{\left((-1-b^2n^2)\,x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec(a+b\log(x))\,dx,x,cx^n\right)}{n} \\
&= \left(16b^2e^{3ia}nx(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^3}\,dx,x,cx^n\right) \\
&\quad+\frac{\left(2e^{ia}(-1-b^2n^2)\,x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{1}{n}}}{1+e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n} \\
&= -2e^{ia}(1-ibn)x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right) \\
&\quad+\frac{16b^2e^{3ia}nx(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{3ib+\frac{1}{n}}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 1.05 (sec) , antiderivative size = 29, normalized size of antiderivative = 0.71

$$\int \left(-\left(\left(1+b^2n^2\right)\sec \left(a+b\log \left(cx^n\right)\right)\right)+2b^2n^2\sec ^3\left(a+b\log \left(cx^n\right)\right)\right) \, dx$$
$$=x\sec \left(a+b\log \left(cx^n\right)\right)\left(-1+bn\tan \left(a+b\log \left(cx^n\right)\right)\right)$$

```
[In] Integrate[-((1 + b^2*n^2)*Sec[a + b*Log[c*x^n]]) + 2*b^2*n^2*Sec[a + b*Log[
c*x^n]]^3,x]
```

```
[Out] x*Sec[a + b*Log[c*x^n]]*(-1 + b*n*Tan[a + b*Log[c*x^n]])
```

Maple [A] (verified)

Time = 29.53 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.24

method	result
parallelrisch	$-\frac{2x(-\sin(a+b\ln(c\,x^n))bn+\cos(a+b\ln(c\,x^n)))}{\cos(4b\ln(\sqrt{c\,x^n})+2a)+1}$
risch	$-\frac{2ic^{ib}(x^n)^{ib}x\left(nb\,c^{2ib}(x^n)^{2ib}\mathrm{e}^{-\frac{3b\pi\ \mathrm{csgn}(ix^n)\ \mathrm{csgn}(ic\,x^n)^2}{2}}\mathrm{e}^{\frac{3b\pi\ \mathrm{csgn}(ix^n)\ \mathrm{csgn}(ic\,x^n)\ \mathrm{csgn}(ic)}{2}}\mathrm{e}^{\frac{3b\pi\,\mathrm{csgn}(ic\,x^n)^3}{2}}\mathrm{e}^{-\frac{3b\pi\,\mathrm{csgn}(ic\,x^n)^2}{2}}\right.}{}$

```
[In] int(-(b^2*n^2+1)*sec(a+b*ln(c*x^n))+2*b^2*n^2*sec(a+b*ln(c*x^n))^3,x,method
=_RETURNVERBOSE)
```

```
[Out] -2*x*(-sin(a+b*ln(c*x^n))*b*n+cos(a+b*ln(c*x^n)))/(cos(4*b*ln((c*x^n)^(1/2)
)+2*a)+1)
```

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 47, normalized size of antiderivative = 1.15

$$\int \left(-\left(\left(1+b^2n^2\right)\sec \left(a+b\log \left(cx^n\right)\right)\right)+2b^2n^2\sec ^3\left(a+b\log \left(cx^n\right)\right)\right) \, dx$$
$$=\frac{bnx\sin \left(bn\log \left(x\right)+b\log \left(c\right)+a\right)-x\cos \left(bn\log \left(x\right)+b\log \left(c\right)+a\right)}{\cos \left(bn\log \left(x\right)+b\log \left(c\right)+a\right)^2}$$

```
[In] integrate(-(b^2*n^2+1)*sec(a+b*log(c*x^n))+2*b^2*n^2*sec(a+b*log(c*x^n))^3,
x, algorithm="fricas")
```

```
[Out] (b*n*x*sin(b*n*log(x) + b*log(c) + a) - x*cos(b*n*log(x) + b*log(c) + a))/c
os(b*n*log(x) + b*log(c) + a)^2
```

Sympy [F]

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\int \left(2b^2n^2\sec^2\left(a+b\log\left(cx^n\right)\right)-b^2n^2-1\right)\sec\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(-(b**2*n**2+1)*sec(a+b*ln(c*x**n))+2*b**2*n**2*sec(a+b*ln(c*x**n)
)**3,x)
```

```
[Out] Integral((2*b**2*n**2*sec(a + b*log(c*x**n))**2 - b**2*n**2 - 1)*sec(a + b*
log(c*x**n)), x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1696 vs. $2(41) = 82$.

Time = 0.62 (sec) , antiderivative size = 1696, normalized size of antiderivative = 41.37

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(-(b^2*n^2+1)*sec(a+b*log(c*x^n))+2*b^2*n^2*sec(a+b*log(c*x^n))^3,
x, algorithm="maxima")
```

```
[Out] -2*((b*n*sin(b*log(c)) + cos(b*log(c)))*x*cos(b*log(x^n) + a) + (b*n*cos(b*
log(c)) - sin(b*log(c)))*x*sin(b*log(x^n) + a) + (((b*cos(3*b*log(c))*sin(4
*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)))*n + cos(4*b*log(c))*cos(3*b
*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) - ((b
*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(b*log(c)))*n - cos(4
*b*log(c))*cos(b*log(c)) - sin(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n)
+ a) - ((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(
c)))*n - cos(3*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))
*x*sin(3*b*log(x^n) + 3*a) + ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*
log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*
sin(b*log(c)))*x*sin(b*log(x^n) + a))*cos(4*b*log(x^n) + 4*a) - (2*((b*cos(
2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(3*
b*log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(
x^n) + 2*a) - 2*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin
(2*b*log(c)))*n + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b
*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (b*n*sin(3*b*log(c)) - cos(3*b*log(c)
))*x)*cos(3*b*log(x^n) + 3*a) - 2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*co
s(2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - sin(2*b*lo
g(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) - ((b*cos(2*b*log(c))*cos(b*log(
c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) -
```

```
cos(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*
a) + (((b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c
)))*n - cos(3*b*log(c))*sin(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*
x*cos(3*b*log(x^n) + 3*a) - ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*l
og(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*s
in(b*log(c)))*x*cos(b*log(x^n) + a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) -
 b*cos(4*b*log(c))*sin(3*b*log(c)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + s
in(4*b*log(c))*sin(3*b*log(c)))*x*sin(3*b*log(x^n) + 3*a) - ((b*cos(b*log(c
))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(b*log(c)))*n - cos(4*b*log(c))*c
os(b*log(c)) - sin(4*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*sin(4*
b*log(x^n) + 4*a) - (2*((b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(
c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*
sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*b*
log(c)) - b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*lo
g(c)) - sin(3*b*log(c))*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (b*n*c
os(3*b*log(c)) + sin(3*b*log(c)))*x)*sin(3*b*log(x^n) + 3*a) - 2*(((b*cos(2
*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c
))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) +
 ((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n - c
os(2*b*log(c))*cos(b*log(c)) - sin(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x
^n) + a))*sin(2*b*log(x^n) + 2*a))/((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)
*cos(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(
2*b*log(x^n) + 2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log
(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n)
 + 2*a)^2 + 2*(2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b
*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - co
s(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + cos(4*b*log(c)))*c
os(4*b*log(x^n) + 4*a) + 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*(2*(
cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*
log(x^n) + 2*a) - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(
2*b*log(c)))*sin(2*b*log(x^n) + 2*a) + sin(4*b*log(c)))*sin(4*b*log(x^n) +
4*a) - 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)
```

Giac [F]

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\int 2\,b^2n^2\sec\left(b\log\left(cx^n\right)+a\right)^3-\left(b^2n^2+1\right)\sec\left(b\log\left(cx^n\right)+a\right)\,dx$$

```
[In] integrate(-(b^2*n^2+1)*sec(a+b*log(c*x^n))+2*b^2*n^2*sec(a+b*log(c*x^n))^3,
x, algorithm="giac")
```

```
[Out] integrate(2*b^2*n^2*sec(b*log(c*x^n) + a)^3 - (b^2*n^2 + 1)*sec(b*log(c*x^n
) + a), x)
```

Mupad [B] (verification not implemented)

Time = 27.40 (sec) , antiderivative size = 87, normalized size of antiderivative = 2.12

$$\int \left(-\left(\left(1+b^2n^2\right)\sec\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\sec^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\frac{2\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}\,\left(-1+b\,n\,1\mathrm{i}\right)-2\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}\,\left(1+b\,n\,1\mathrm{i}\right)}{{\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}+1\right)}^2}$$

```
[In] int((2*b^2*n^2)/cos(a + b*log(c*x^n))^3 - (b^2*n^2 + 1)/cos(a + b*log(c*x^n
)),x)
```

```
[Out] (2*x*exp(a*1i)*(c*x^n)^(b*1i)*(b*n*1i - 1) - 2*x*exp(a*1i)*exp(a*2i)*(c*x^n
)^(b*1i)*(c*x^n)^(b*2i)*(b*n*1i + 1))/(exp(a*2i)*(c*x^n)^(b*2i) + 1)^2
```

3.260 $\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$

Optimal result 2478
Rubi [C] (verified) 2478
Mathematica [A] (verified) 2480
Maple [F] 2480
Fricas [C] (verification not implemented) 2480
Sympy [F(-1)] 2481
Maxima [B] (verification not implemented) 2481
Giac [C] (verification not implemented) 2482
Mupad [B] (verification not implemented) 2483

Optimal result

Integrand size = 31, antiderivative size = 110

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \frac{x^{1+m}\sec\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)}{2(1+m)} + \frac{x^{1+m}\sec\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\tan\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)}{2\sqrt{-(1+m)^2}}$$

```
[Out] 1/2*x^(1+m)*sec(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))/(1+m)+1/2*x^(1+m)*sec(a
+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))*tan(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))/
(-(1+m)^2)^(1/2)
```

Rubi [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.24 (sec) , antiderivative size = 146, normalized size of antiderivative = 1.33, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.097, Rules used = {4605, 4601, 371}

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \frac{8e^{3ia}x^{m+1}\left(cx^{\frac{1}{2}\sqrt{-(m+1)^2}}\right)^{6i}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i(m+1)}{\sqrt{-(m+1)^2}}\right),\frac{1}{2}\left(5-\frac{i(m+1)}{\sqrt{-(m+1)^2}}\right),-e^{2ia}\left(cx^{\frac{1}{2}\sqrt{-(m-}}\right.\right.}{1-i\left(-3\sqrt{-(m+1)^2}+im\right)}$$

```
[In] Int[x^m*Sec[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]]^3,x]
```

```
[Out] (8*E^((3*I)*a)*x^(1 + m)*(c*x^(Sqrt[-(1 + m)^2]/2))^(6*I)*Hypergeometric2F1
[3, (3 - (I*(1 + m))/Sqrt[-(1 + m)^2])/2, (5 - (I*(1 + m))/Sqrt[-(1 + m)^2]
)/2, -(E^((2*I)*a)*(c*x^(Sqrt[-(1 + m)^2]/2))^(4*I))])/(1 - I*(I*m - 3*Sqrt
[-(1 + m)^2]))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

integral

$$=\frac{\left(2x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{-\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\right)\text{Subst}\left(\int x^{-1+\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\sec^3(a+2\log(x))\,dx,x,cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)}{\sqrt{-(1+m)^2}}$$

$$=\frac{\left(16e^{3ia}x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{-\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\right)\text{Subst}\left(\int\frac{x^{(-1+6i)+\frac{2(1+m)}{\sqrt{-(1+m)^2}}}}{(1+e^{2ia}x^{4i})^3}\,dx,x,cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)}{\sqrt{-(1+m)^2}}$$

$$=\frac{8e^{3ia}x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{6i}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i(1+m)}{\sqrt{-(1+m)^2}}\right),\frac{1}{2}\left(5-\frac{i(1+m)}{\sqrt{-(1+m)^2}}\right),-e^{2ia}\left(\right.\right.}{1-i\left(im-3\sqrt{-(1+m)^2}\right)}$$

Mathematica [A] (verified)

Time = 1.52 (sec) , antiderivative size = 198, normalized size of antiderivative = 1.80

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$$
$$=\frac{x^{1+m}\left((1+m)\cos\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)-\sqrt{-(1+m)^2}\sin\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\right)}{2(1+m)^2\left(\cos\left(\frac{a}{2}+\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)-\sin\left(\frac{a}{2}+\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\right)^2\left(\cos\left(\frac{a}{2}+\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)+\sin\left(\frac{a}{2}+\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\right)^2}$$

```
[In] Integrate[x^m*Sec[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]]^3,x]
```

```
[Out] (x^(1 + m)*((1 + m)*Cos[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]] - Sqrt[-(1 + m
)^2]*Sin[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]]))/(2*(1 + m)^2*(Cos[a/2 + Log
[c*x^(Sqrt[-(1 + m)^2]/2)]] - Sin[a/2 + Log[c*x^(Sqrt[-(1 + m)^2]/2)]])^2*(
Cos[a/2 + Log[c*x^(Sqrt[-(1 + m)^2]/2)]] + Sin[a/2 + Log[c*x^(Sqrt[-(1 + m)
^2]/2)]])^2)
```

Maple [F]

$$\int x^m \sec\left(a+2\ln\left(c\,x^{\frac{\sqrt{-(1+m)^2}}{2}}\right)\right)^3 dx$$

```
[In] int(x^m*sec(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x)
```

```
[Out] int(x^m*sec(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x)
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.24 (sec) , antiderivative size = 81, normalized size of antiderivative = 0.74

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$$
$$=-\frac{2\left(2\,x^2x^{2\,m}e^{(3i\,a+6i\,\log(c))}+e^{(5i\,a+10i\,\log(c))}\right)}{(m+1)x^4x^{4\,m}+2\,(m+1)x^2x^{2\,m}e^{(2i\,a+4i\,\log(c))}+(m+1)e^{(4i\,a+8i\,\log(c))}}$$

```
[In] integrate(x^m*sec(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="fric
as")
```

```
[Out] -2*(2*x^2*x^(2*m)*e^(3*I*a + 6*I*log(c)) + e^(5*I*a + 10*I*log(c)))/((m + 1
)*x^4*x^(4*m) + 2*(m + 1)*x^2*x^(2*m)*e^(2*I*a + 4*I*log(c)) + (m + 1)*e^(4
*I*a + 8*I*log(c)))
```

Sympy [F(-1)]

Timed out.

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx=\text{Timed out}$$

```
[In] integrate(x**m*sec(a+2*ln(c*x**(1/2*(-(1+m)**2)**(1/2))))**3,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 976 vs. $2(92) = 184$.

Time = 0.31 (sec) , antiderivative size = 976, normalized size of antiderivative = 8.87

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx=\text{Too large to display}$$

```
[In] integrate(x^m*sec(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="maxi
ma")
```

```
[Out] 2*((cos(a)*cos(2*log(c)) - sin(a)*sin(2*log(c)))*x*e^(m*log(x) + 14*arctan2
(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 14*arctan2(sin(1/2*log(x)), cos(1/
2*log(x)))) + 2*(((cos(2*a)*cos(a) + sin(2*a)*sin(a))*cos(2*log(c)) + (cos(
a)*sin(2*a) - cos(2*a)*sin(a))*sin(2*log(c)))*cos(4*log(c)) - ((cos(a)*sin(
2*a) - cos(2*a)*sin(a))*cos(2*log(c)) - (cos(2*a)*cos(a) + sin(2*a)*sin(a))
*sin(2*log(c)))*sin(4*log(c)))*x*e^(m*log(x) + 10*arctan2(sin(1/2*m*log(x))
, cos(1/2*m*log(x))) + 10*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))) + (((c
os(4*a)*cos(a) + sin(4*a)*sin(a))*cos(2*log(c)) + (cos(a)*sin(4*a) - cos(4*
a)*sin(a))*sin(2*log(c)))*cos(8*log(c)) - ((cos(a)*sin(4*a) - cos(4*a)*sin(
a))*cos(2*log(c)) - (cos(4*a)*cos(a) + sin(4*a)*sin(a))*sin(2*log(c)))*sin(
8*log(c)))*x*e^(m*log(x) + 6*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x)))
+ 6*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))))/((cos(4*a)^2 + sin(4*a)^2)*
cos(8*log(c))^2 + (cos(4*a)^2 + sin(4*a)^2)*sin(8*log(c))^2 + ((cos(4*a)^2
+ sin(4*a)^2)*cos(8*log(c))^2 + (cos(4*a)^2 + sin(4*a)^2)*sin(8*log(c))^2)*
m + (m + 1)*e^(16*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 16*arctan
2(sin(1/2*log(x)), cos(1/2*log(x)))) + 4*((cos(2*a)*cos(4*log(c)) - sin(2*a
)*sin(4*log(c)))*m + cos(2*a)*cos(4*log(c)) - sin(2*a)*sin(4*log(c)))*e^(12
*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 12*arctan2(sin(1/2*log(x))
, cos(1/2*log(x)))) + 2*(2*(cos(2*a)^2 + sin(2*a)^2)*cos(4*log(c))^2 + 2*(c
os(2*a)^2 + sin(2*a)^2)*sin(4*log(c))^2 + (2*(cos(2*a)^2 + sin(2*a)^2)*cos(
4*log(c))^2 + 2*(cos(2*a)^2 + sin(2*a)^2)*sin(4*log(c))^2 + cos(4*a)*cos(8*
log(c)) - sin(4*a)*sin(8*log(c)))*m + cos(4*a)*cos(8*log(c)) - sin(4*a)*sin
(8*log(c)))*e^(8*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 8*arctan2(
sin(1/2*log(x)), cos(1/2*log(x)))) + 4*((((cos(4*a)*cos(2*a) + sin(4*a)*sin
```

```
(2*a))*cos(4*log(c)) + (cos(2*a)*sin(4*a) - cos(4*a)*sin(2*a))*sin(4*log(c)
))*cos(8*log(c)) - ((cos(2*a)*sin(4*a) - cos(4*a)*sin(2*a))*cos(4*log(c)) -
 (cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*sin(4*log(c)))*sin(8*log(c)))*m +
((cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*cos(4*log(c)) + (cos(2*a)*sin(4*a)
 - cos(4*a)*sin(2*a))*sin(4*log(c)))*cos(8*log(c)) - ((cos(2*a)*sin(4*a) -
cos(4*a)*sin(2*a))*cos(4*log(c)) - (cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*
sin(4*log(c)))*sin(8*log(c)))*e^(4*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log
(x))) + 4*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 11.64 (sec) , antiderivative size = 834, normalized size of antiderivative = 7.58

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*sec(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="giac
")
```

```
[Out] c^(6*I)*m*x*x^m*x^abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(8*I)*m
*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*I*a) +
 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1))*e^(2*I
*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1))) - c^(
6*I)*x*x^m*x^abs(m + 1)*abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(
8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*
I*a) + 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1))*
e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1)))
 + c^(6*I)*x*x^m*x^abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(8*I)*
m*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*I*a)
+ 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1))*e^(2*
I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1))) + c^
(2*I)*m*x*x^m*x^(3*abs(m + 1))*e^(I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(8*I)*m
*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*I*a) +
 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1))*e^(2*I
*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1))) + c^(
2*I)*x*x^m*x^(3*abs(m + 1))*abs(m + 1)*e^(I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c
^(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(
2*I*a) + 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1)
)*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1)
)) + c^(2*I)*x*x^m*x^(3*abs(m + 1))*e^(I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(8
*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) + 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*I
*a) + 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) + 2*c^(4*I)*x^(2*abs(m + 1))*e
^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1)))
```

Mupad [B] (verification not implemented)

Time = 31.92 (sec) , antiderivative size = 176, normalized size of antiderivative = 1.60

$$\int x^m \sec^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$$
$$=\frac{\frac{x^{m+1}\,e^{a\,1i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{2i}\left(m\,1i+\sqrt{-(m+1)^2}+1i\right)}{\sqrt{-(m+1)^2}}-\frac{x^{m+1}\,e^{a\,1i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{6i}\left(e^{a\,2i}\,1i-e^{a\,2i}\,\sqrt{-(m+1)^2}+m\,e^{a\,2i}\,1i\right)}{\sqrt{-(m+1)^2}}}{(m+1)\left(e^{a\,2i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{4i}+1\right)^2}$$

```
[In] int(x^m/cos(a + 2*log(c*x^((-(m + 1)^2)^(1/2)/2)))^3,x)
```

```
[Out] ((x^(m + 1)*exp(a*1i)*(c*x^((- 2*m - m^2 - 1)^(1/2)/2))^2i*(m*1i + (-(m + 1
)^2)^(1/2) + 1i))/(-(m + 1)^2)^(1/2) - (x^(m + 1)*exp(a*1i)*(c*x^((- 2*m -
m^2 - 1)^(1/2)/2))^6i*(exp(a*2i)*1i - exp(a*2i)*(-(m + 1)^2)^(1/2) + m*exp(
a*2i)*1i))/(-(m + 1)^2)^(1/2))/((m + 1)*(exp(a*2i)*(c*x^((- 2*m - m^2 - 1)^
(1/2)/2))^4i + 1)^2)
```

3.261 $\int x \sec^3\left(a+2\log\left(cx^i\right)\right)\,dx$

Optimal result 2484
Rubi [A] (verified) 2484
Mathematica [B] (verified) 2485
Maple [C] (warning: unable to verify) 2486
Fricas [A] (verification not implemented) 2486
Sympy [F] 2486
Maxima [B] (verification not implemented) 2487
Giac [F] 2487
Mupad [B] (verification not implemented) 2487

Optimal result

Integrand size = 17, antiderivative size = 45

$$\int x \sec^3\left(a+2\log\left(cx^i\right)\right)\,dx=\frac{e^{ia}\left(cx^i\right)^{2i}x^2}{\left(1+e^{2ia}\left(cx^i\right)^{4i}\right)^2}$$

```
[Out] exp(I*a)*(c*x^I)^(2*I)*x^2/(1+exp(2*I*a)*(c*x^I)^(4*I))^2
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 45, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 267}

$$\int x \sec^3\left(a+2\log\left(cx^i\right)\right)\,dx=\frac{e^{ia}x^2\left(cx^i\right)^{2i}}{\left(1+e^{2ia}\left(cx^i\right)^{4i}\right)^2}$$

```
[In] Int[x*Sec[a + 2*Log[c*x^I]]^3,x]
[Out] (E^(I*a)*(c*x^I)^(2*I)*x^2)/(1 + E^((2*I)*a)*(c*x^I)^(4*I))^2
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
```

```
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= -\left(\left(i(cx^i)^{2i}x^2\right)\text{Subst}\left(\int x^{-1-2i}\sec^3(a+2\log(x))\,dx, x, cx^i\right)\right)\\
&= -\left(\left(8ie^{3ia}(cx^i)^{2i}x^2\right)\text{Subst}\left(\int \frac{x^{-1+4i}}{(1+e^{2ia}x^{4i})^3}\,dx, x, cx^i\right)\right)\\
&= \frac{e^{ia}(cx^i)^{2i}x^2}{\left(1+e^{2ia}(cx^i)^{4i}\right)^2}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 127 vs. 2(45) = 90.

Time = 0.12 (sec) , antiderivative size = 127, normalized size of antiderivative = 2.82

$$\int x\sec^3\left(a+2\log\left(cx^i\right)\right)\,dx = -\frac{\sec^2\left(a+2\log\left(cx^i\right)\right)\left((1+2x^4)\cos\left(a+2\log\left(cx^i\right)-2i\log(x)\right)+i(1-2x^4)\sin\left(a+2\log\left(cx^i\right)-2i\log\ldots\right.\right.}{4x^4}$$

```
[In] Integrate[x*Sec[a + 2*Log[c*x^I]]^3,x]
```

```
[Out] -1/4*(Sec[a + 2*Log[c*x^I]]^2*((1 + 2*x^4)*Cos[a + 2*Log[c*x^I] - (2*I)*Log
[x]] + I*(1 - 2*x^4)*Sin[a + 2*Log[c*x^I] - (2*I)*Log[x]])*(Cos[2*(a + 2*Lo
g[c*x^I] - (2*I)*Log[x])] + I*Sin[2*(a + 2*Log[c*x^I] - (2*I)*Log[x])]))/x^
4
```

Maple [C] (warning: unable to verify)

Result contains higher order function than in optimal. Order 9 vs. order 3.

Time = 0.17 (sec) , antiderivative size = 209, normalized size of antiderivative = 4.64

$$\frac{x^{2} c^{2i} \left(x^{i}\right)^{2i} \mathrm{e}^{-\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\, x^{i}\right)^{2}+\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\, x^{i}\right) \mathrm{csgn}\left(i c\right)+\pi \,\mathrm{csgn}\left(i c\, x^{i}\right)^{3}-\pi \,\mathrm{csgn}\left(i c\, x^{i}\right)^{2} \mathrm{csgn}\left(i c\right)+i a}}{\left(\left(x^{i}\right)^{4i} c^{4i} \mathrm{e}^{-2\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\, x^{i}\right)^{2}} \mathrm{e}^{2\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\, x^{i}\right) \mathrm{csgn}\left(i c\right)} \mathrm{e}^{2\pi \,\mathrm{csgn}\left(i c\, x^{i}\right)^{3}} \mathrm{e}^{-2\pi \,\mathrm{csgn}\left(i c\, x^{i}\right)^{2} \mathrm{csgn}\left(i c\right)} \mathrm{e}^{2 i a}+1\right)^{2}}$$

```
[In] int(x*sec(a+2*ln(c*x^I))^3,x)
```

```
[Out] x^2*c^(2*I)*(x^I)^(2*I)*exp(-Pi*csgn(I*x^I)*csgn(I*c*x^I)^2+Pi*csgn(I*x^I)*
csgn(I*c*x^I)*csgn(I*c)+Pi*csgn(I*c*x^I)^3-Pi*csgn(I*c*x^I)^2*csgn(I*c)+I*a
)/(((x^I)^(2*I))^2*(c^(2*I))^2*exp(-2*Pi*csgn(I*x^I)*csgn(I*c*x^I)^2)*exp(2
*Pi*csgn(I*x^I)*csgn(I*c*x^I)*csgn(I*c))*exp(2*Pi*csgn(I*c*x^I)^3)*exp(-2*P
i*csgn(I*c*x^I)^2*csgn(I*c))*exp(2*I*a)+1)^2
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.22

$$\int x \sec^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx = -\frac{2 \, x^{4} e^{\left(3 i \, a + 6 i \, \log\left(c\right)\right)} + e^{\left(5 i \, a + 10 i \, \log\left(c\right)\right)}}{x^{8} + 2 \, x^{4} e^{\left(2 i \, a + 4 i \, \log\left(c\right)\right)} + e^{\left(4 i \, a + 8 i \, \log\left(c\right)\right)}}$$

```
[In] integrate(x*sec(a+2*log(c*x^I))^3,x, algorithm="fricas")
```

```
[Out] -(2*x^4*e^(3*I*a + 6*I*log(c)) + e^(5*I*a + 10*I*log(c)))/(x^8 + 2*x^4*e^(2
*I*a + 4*I*log(c)) + e^(4*I*a + 8*I*log(c)))
```

Sympy [F]

$$\int x \sec^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx = \int x \sec^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx$$

```
[In] integrate(x*sec(a+2*ln(c*x**I))**3,x)
```

```
[Out] Integral(x*sec(a + 2*log(c*x**I))**3, x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 139 vs. 2(31) = 62.

Time = 0.25 (sec) , antiderivative size = 139, normalized size of antiderivative = 3.09

$$\int x\sec^3\left(a+2\log\left(cx^i\right)\right)\,dx$$
$$=\frac{((\cos(a)+i\sin(a))\cos(2\log(c))-(-i\cos(a)}{(\cos(4a)+i\sin(4a))\cos(8\log(c))+2((\cos(2a)+i\sin(2a))\cos(4\log(c))-(-i\cos(2a)+\sin(2a)}$$

```
[In] integrate(x*sec(a+2*log(c*x^I))^3,x, algorithm="maxima")
```

```
[Out] ((cos(a) + I*sin(a))*cos(2*log(c)) - (-I*cos(a) + sin(a))*sin(2*log(c)))*x^
2*e^(6*arctan2(sin(log(x)), cos(log(x))))/((cos(4*a) + I*sin(4*a))*cos(8*lo
g(c)) + 2*((cos(2*a) + I*sin(2*a))*cos(4*log(c)) - (-I*cos(2*a) + sin(2*a))
*sin(4*log(c)))*e^(4*arctan2(sin(log(x)), cos(log(x)))) + (I*cos(4*a) - sin
(4*a))*sin(8*log(c)) + e^(8*arctan2(sin(log(x)), cos(log(x)))))
```

Giac [F]

$$\int x\sec^3\left(a+2\log\left(cx^i\right)\right)\,dx=\int x\sec\left(a+2\log\left(cx^i\right)\right)^3\,dx$$

```
[In] integrate(x*sec(a+2*log(c*x^I))^3,x, algorithm="giac")
```

```
[Out] integrate(x*sec(a + 2*log(c*x^I))^3, x)
```

Mupad [B] (verification not implemented)

Time = 29.92 (sec) , antiderivative size = 46, normalized size of antiderivative = 1.02

$$\int x\sec^3\left(a+2\log\left(cx^i\right)\right)\,dx=\frac{x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{2\mathrm{i}}}{2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{4\mathrm{i}}+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{8\mathrm{i}}+1}$$

```
[In] int(x/cos(a + 2*log(c*x^1i))^3,x)
```

```
[Out] (x^2*exp(a*1i)*(c*x^1i)^2i)/(2*exp(a*2i)*(c*x^1i)^4i + exp(a*4i)*(c*x^1i)^8
i + 1)
```

3.262 $\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx$

Optimal result 2488
Rubi [A] (verified) 2488
Mathematica [B] (verified) 2489
Maple [A] (verified) 2490
Fricas [A] (verification not implemented) 2490
Sympy [F] 2490
Maxima [B] (verification not implemented) 2491
Giac [A] (verification not implemented) 2491
Mupad [B] (verification not implemented) 2491

Optimal result

Integrand size = 17, antiderivative size = 58

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=\frac{1}{2}x\sec\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)-\frac{1}{2}ix\sec\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\tan\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)$$

```
[Out] 1/2*x*sec(a+2*ln(c*x^(1/2*I)))-1/2*I*x*sec(a+2*ln(c*x^(1/2*I)))*tan(a+2*ln(
c*x^(1/2*I)))
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 48, normalized size of antiderivative = 0.83, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4599, 4601, 267}

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=\frac{2e^{ia}x\left(cx^{\frac{i}{2}}\right)^{2i}}{\left(1+e^{2ia}\left(cx^{\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[In] Int[Sec[a + 2*Log[c*x^(I/2)]]^3,x]
```

```
[Out] (2*E^(I*a)*(c*x^(I/2))^(2*I)*x)/(1 + E^((2*I)*a)*(c*x^(I/2))^(4*I))^2
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\left(\left(2i\left(cx^{\frac{i}{2}}\right)^{2i}x\right)\text{Subst}\left(\int x^{-1-2i}\sec^3(a+2\log(x))\,dx,x,cx^{\frac{i}{2}}\right)\right)\\ &= -\left(\left(16ie^{3ia}\left(cx^{\frac{i}{2}}\right)^{2i}x\right)\text{Subst}\left(\int\frac{x^{-1+4i}}{(1+e^{2ia}x^{4i})^3}\,dx,x,cx^{\frac{i}{2}}\right)\right)\\ &= \frac{2e^{ia}\left(cx^{\frac{i}{2}}\right)^{2i}x}{\left(1+e^{2ia}\left(cx^{\frac{i}{2}}\right)^{4i}\right)^2}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 137 vs. $2(58) = 116$.

Time = 0.09 (sec) , antiderivative size = 137, normalized size of antiderivative = 2.36

$$\int\sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)dx = -\frac{\sec^2\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\left((1+2x^2)\cos\left(a+2\log\left(cx^{\frac{i}{2}}\right)-i\log(x)\right)+i(1-2x^2)\sin\left(a+2\log\left(cx^{\frac{i}{2}}\right)-\right.\right.}{2x^2}$$

```
[In] Integrate[Sec[a + 2*Log[c*x^(I/2)]]^3,x]
```

```
[Out] -1/2*(Sec[a + 2*Log[c*x^(I/2)]]^2*((1 + 2*x^2)*Cos[a + 2*Log[c*x^(I/2)] - I
*Log[x]] + I*(1 - 2*x^2)*Sin[a + 2*Log[c*x^(I/2)] - I*Log[x]])*(Cos[2*(a +
2*Log[c*x^(I/2)] - I*Log[x])] + I*Sin[2*(a + 2*Log[c*x^(I/2)] - I*Log[x])])
)/x^2
```

Maple [A] (verified)

Time = 228.79 (sec) , antiderivative size = 49, normalized size of antiderivative = 0.84

method	result
parallelrisch	$\frac{x\left(-i\sin\left(a+2\ln\left(c\,x^{\frac{i}{2}}\right)\right)+\cos\left(a+2\ln\left(c\,x^{\frac{i}{2}}\right)\right)\right)}{\cos\left(2a+4\ln\left(c\,x^{\frac{i}{2}}\right)\right)+1}$
risch	$\frac{2x\left(x^{\frac{i}{2}}\right)^{2i}c^{2i}\mathrm{e}^{-\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}+\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)\operatorname{csgn}(ic)+\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{3}-\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}\operatorname{csgn}(ic)+ia}}{\left(c^{4i}\left(x^{\frac{i}{2}}\right)^{4i}\mathrm{e}^{-2\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}}\mathrm{e}^{2\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)\operatorname{csgn}(ic)}\mathrm{e}^{2\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{3}}\mathrm{e}^{-2\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}\operatorname{csgn}(ic)}\mathrm{e}^{2ia}+1\right.}$

[In] int(sec(a+2*ln(c*x^(1/2*I)))^3,x,method=_RETURNVERBOSE)

[Out] x*(-I*sin(a+2*ln(c*x^(1/2*I)))+cos(a+2*ln(c*x^(1/2*I))))/(cos(2*a+4*ln(c*x^(1/2*I)))+1)

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 55, normalized size of antiderivative = 0.95

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=-\frac{2\left(2\,x^2e^{(3i\,a+6i\,\log(c))}+e^{(5i\,a+10i\,\log(c))}\right)}{x^4+2\,x^2e^{(2i\,a+4i\,\log(c))}+e^{(4i\,a+8i\,\log(c))}}$$

[In] integrate(sec(a+2*log(c*x^(1/2*I)))^3,x, algorithm="fricas")

[Out] -2*(2*x^2*e^(3*I*a + 6*I*log(c)) + e^(5*I*a + 10*I*log(c)))/(x^4 + 2*x^2*e^(2*I*a + 4*I*log(c)) + e^(4*I*a + 8*I*log(c)))

Sympy [F]

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx$$

[In] integrate(sec(a+2*ln(c*x**(1/2*I)))**3,x)

[Out] Integral(sec(a + 2*log(c*x**(I/2)))**3, x)

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 151 vs. 2(40) = 80.

Time = 0.25 (sec) , antiderivative size = 151, normalized size of antiderivative = 2.60

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx$$
$$=\frac{2\left((\cos(a)+i\sin(a))\cos(2\log(c))+(i\cos\right.}{(\cos(4a)+i\sin(4a))\cos(8\log(c))+2\left((\cos(2a)+i\sin(2a))\cos(4\log(c))-(-i\cos(2a)+\sin(2a)\right.}$$

```
[In] integrate(sec(a+2*log(c*x^(1/2*I)))^3,x, algorithm="maxima")
```

```
[Out] 2*((cos(a) + I*sin(a))*cos(2*log(c)) + (I*cos(a) - sin(a))*sin(2*log(c)))*x
*e^(6*arctan2(sin(1/2*log(x)), cos(1/2*log(x))))/((cos(4*a) + I*sin(4*a))*c
os(8*log(c)) + 2*((cos(2*a) + I*sin(2*a))*cos(4*log(c)) - (-I*cos(2*a) + si
n(2*a))*sin(4*log(c)))*e^(4*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))) + (I
*cos(4*a) - sin(4*a))*sin(8*log(c)) + e^(8*arctan2(sin(1/2*log(x)), cos(1/2
*log(x)))))
```

Giac [A] (verification not implemented)

none

Time = 1.17 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.28

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=-\frac{2\,c^{10i}e^{(5i\,a)}}{c^{8i}e^{(4i\,a)}+2\,c^{4i}x^2e^{(2i\,a)}+x^4}-\frac{4\,c^{6i}x^2e^{(3i\,a)}}{c^{8i}e^{(4i\,a)}+2\,c^{4i}x^2e^{(2i\,a)}+x^4}$$

```
[In] integrate(sec(a+2*log(c*x^(1/2*I)))^3,x, algorithm="giac")
```

```
[Out] -2*c^(10*I)*e^(5*I*a)/(c^(8*I)*e^(4*I*a) + 2*c^(4*I)*x^2*e^(2*I*a) + x^4) -
 4*c^(6*I)*x^2*e^(3*I*a)/(c^(8*I)*e^(4*I*a) + 2*c^(4*I)*x^2*e^(2*I*a) + x^4
)
```

Mupad [B] (verification not implemented)

Time = 29.52 (sec) , antiderivative size = 56, normalized size of antiderivative = 0.97

$$\int \sec^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx=\frac{2\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{2\mathrm{i}}}{2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{4\mathrm{i}}+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{8\mathrm{i}}+1}$$

```
[In] int(1/cos(a + 2*log(c*x^(1i/2)))^3,x)
```

```
[Out] (2*x*exp(a*1i)*(c*x^(1i/2))^2i)/(2*exp(a*2i)*(c*x^(1i/2))^4i + exp(a*4i)*(c
*x^(1i/2))^8i + 1)
```

3.263 $\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$

Optimal result 2492
Rubi [A] (verified) 2492
Mathematica [B] (verified) 2493
Maple [A] (verified) 2494
Fricas [B] (verification not implemented) 2494
Sympy [F] 2494
Maxima [B] (verification not implemented) 2495
Giac [B] (verification not implemented) 2495
Mupad [B] (verification not implemented) 2496

Optimal result

Integrand size = 17, antiderivative size = 48

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{2e^{3ia}\left(cx^{-\frac{i}{2}}\right)^{6i}x}{\left(1+e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[Out] 2*exp(3*I*a)*(c/(x^(1/2*I)))^(6*I)*x/(1+exp(2*I*a)*(c/(x^(1/2*I)))^(4*I))^2
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 48, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4599, 4601, 270}

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{2e^{3ia}x\left(cx^{-\frac{i}{2}}\right)^{6i}}{\left(1+e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[In] Int[Sec[a + 2*Log[c/x^(I/2)]]^3,x]
```

```
[Out] (2*E^((3*I)*a)*(c/x^(I/2))^(6*I)*x)/(1 + E^((2*I)*a)*(c/x^(I/2))^(4*I))^2
```

Rule 270

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*
x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] /; FreeQ[{a, b, c, m, n,
 p}, x] && EqQ[(m + 1)/n + p + 1, 0] && NeQ[m, -1]
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \left(2i\left(cx^{-\frac{i}{2}}\right)^{-2i}x\right)\text{Subst}\left(\int x^{-1+2i}\sec^3(a+2\log(x))\,dx,x,cx^{-\frac{i}{2}}\right)\\ &= \left(16ie^{3ia}\left(cx^{-\frac{i}{2}}\right)^{-2i}x\right)\text{Subst}\left(\int \frac{x^{-1+8i}}{(1+e^{2ia}x^{4i})^3}\,dx,x,cx^{-\frac{i}{2}}\right)\\ &= \frac{2e^{3ia}\left(cx^{-\frac{i}{2}}\right)^{6i}x}{\left(1+e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 139 vs. 2(48) = 96.

Time = 0.11 (sec) , antiderivative size = 139, normalized size of antiderivative = 2.90

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx = \frac{\sec^2\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\left((1+2x^2)\cos\left(a+2\log\left(cx^{-\frac{i}{2}}\right)+i\log(x)\right)+i(-1+2x^2)\sin\left(a+2\log\left(cx^{-\frac{i}{2}}\right.\right.\right.}{4x^2}$$

```
[In] Integrate[Sec[a + 2*Log[c/x^(I/2)]]^3,x]
```

```
[Out] (Sec[a + 2*Log[c/x^(I/2)]]^2*((1 + 2*x^2)*Cos[a + 2*Log[c/x^(I/2)] + I*Log[
x]] + I*(-1 + 2*x^2)*Sin[a + 2*Log[c/x^(I/2)] + I*Log[x]])*(-2*Cos[2*(a + 2
*Log[c/x^(I/2)] + I*Log[x])] + (2*I)*Sin[2*(a + 2*Log[c/x^(I/2)] + I*Log[x]
)]))/(4*x^2)
```

Maple [A] (verified)

Time = 272.79 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.02

method	result
parallelrisch	$\frac{x\left(i\sin\left(a+2\ln\left(c\,x^{-\frac{i}{2}}\right)\right)+\cos\left(a+2\ln\left(c\,x^{-\frac{i}{2}}\right)\right)\right)}{\cos\left(2a+4\ln\left(c\,x^{-\frac{i}{2}}\right)\right)+1}$
risch	$\frac{2x\,c^{6i}\left(x^{\frac{i}{2}}\right)^{-6i}\mathrm{e}^{-3\pi\ \mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}+3\pi\ \mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)\mathrm{csgn}(ic)+3\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{3}-3\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}\cdots}}{\left(c^{4i}\left(x^{\frac{i}{2}}\right)^{-4i}\mathrm{e}^{-2\pi\ \mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}}\mathrm{e}^{2\pi\ \mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)\mathrm{csgn}(ic)}\mathrm{e}^{2\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{3}}\mathrm{e}^{-2\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}\mathrm{csgn}\cdots}\right.}$

```
[In] int(sec(a+2*ln(c/(x^(1/2*I))))^3,x,method=_RETURNVERBOSE)
[Out] x*(I*sin(a+2*ln(c*x^(-1/2*I)))+cos(a+2*ln(c*x^(-1/2*I))))/(cos(2*a+4*ln(c*x
^(-1/2*I)))+1)
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 57 vs. 2(27) = 54.

Time = 0.24 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.19

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=-\frac{2\left(2\,x^2e^{(2i\,a+4i\,\log(c))}+1\right)}{x^4e^{(5i\,a+10i\,\log(c))}+2\,x^2e^{(3i\,a+6i\,\log(c))}+e^{(i\,a+2i\,\log(c))}}$$

```
[In] integrate(sec(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="fricas")
[Out] -2*(2*x^2*e^(2*I*a + 4*I*log(c)) + 1)/(x^4*e^(5*I*a + 10*I*log(c)) + 2*x^2*
e^(3*I*a + 6*I*log(c)) + e^(I*a + 2*I*log(c)))
```

Sympy [F]

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$$

```
[In] integrate(sec(a+2*ln(c/(x**(1/2*I))))**3,x)
[Out] Integral(sec(a + 2*log(c/x**(I/2)))**3, x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 162 vs. $2(27) = 54$.

Time = 0.24 (sec) , antiderivative size = 162, normalized size of antiderivative = 3.38

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$$
$$= \frac{2\left(\left(\cos(3a)+i\sin(3a)\right)\cos(6\log(c))+(i\ \mathrm{co}\right.}{\left(\left(\cos(4a)+i\sin(4a)\right)\cos(8\log(c))-\left(-i\cos(4a)+\sin(4a)\right)\sin(8\log(c))\right)e^{\left(8\arctan\left(\sin\left(\frac{1}{2}\log(x)\right),\cos\left(\frac{1}{2}\mathrm{lo}\right.\right.\right.}}$$

```
[In] integrate(sec(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="maxima")
```

```
[Out] 2*((cos(3*a) + I*sin(3*a))*cos(6*log(c)) + (I*cos(3*a) - sin(3*a))*sin(6*lo
g(c)))*x*e^(6*arctan2(sin(1/2*log(x)), cos(1/2*log(x))))/(((cos(4*a) + I*si
n(4*a))*cos(8*log(c)) - (-I*cos(4*a) + sin(4*a))*sin(8*log(c)))*e^(8*arctan
2(sin(1/2*log(x)), cos(1/2*log(x)))) + 2*((cos(2*a) + I*sin(2*a))*cos(4*log
(c)) + (I*cos(2*a) - sin(2*a))*sin(4*log(c)))*e^(4*arctan2(sin(1/2*log(x)),
 cos(1/2*log(x)))) + 1)
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 83 vs. $2(27) = 54$.

Time = 1.19 (sec) , antiderivative size = 83, normalized size of antiderivative = 1.73

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx = -\frac{4\,c^{4i}x^2e^{(2i\,a)}}{c^{10i}x^4e^{(5i\,a)}+2\,c^{6i}x^2e^{(3i\,a)}+c^{2i}e^{(i\,a)}} - \frac{2}{c^{10i}x^4e^{(5i\,a)}+2\,c^{6i}x^2e^{(3i\,a)}+c^{2i}e^{(i\,a)}}$$

```
[In] integrate(sec(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="giac")
```

```
[Out] -4*c^(4*I)*x^2*e^(2*I*a)/(c^(10*I)*x^4*e^(5*I*a) + 2*c^(6*I)*x^2*e^(3*I*a)
+ c^(2*I)*e^(I*a)) - 2/(c^(10*I)*x^4*e^(5*I*a) + 2*c^(6*I)*x^2*e^(3*I*a) +
c^(2*I)*e^(I*a))
```

Mupad [B] (verification not implemented)

Time = 31.77 (sec) , antiderivative size = 39, normalized size of antiderivative = 0.81

$$\int \sec^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{2\,x\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(\frac{c}{x^{\frac{1}{2}\mathrm{i}}}\right)}^{6\mathrm{i}}}{{\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(\frac{c}{x^{\frac{1}{2}\mathrm{i}}}\right)}^{4\mathrm{i}}+1\right)}^2}$$

```
[In] int(1/cos(a + 2*log(c/x^(1i/2)))^3,x)
[Out] (2*x*exp(a*3i)*(c/x^(1i/2))^6i)/(exp(a*2i)*(c/x^(1i/2))^4i + 1)^2
```

3.264 $\int \sec^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx$

Optimal result 2497
Rubi [A] (verified) 2497
Mathematica [A] (warning: unable to verify) 2498
Maple [F] 2499
Fricas [A] (verification not implemented) 2499
Sympy [F] 2499
Maxima [F] 2500
Giac [F] 2500
Mupad [F(-1)] 2500

Optimal result

Integrand size = 23, antiderivative size = 95

$$\int \sec^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = \frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1+e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\sec^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[Out] 1/2*(2-p)*x*(1+exp(2*I*a)*(c*x^n)^(2/n/(2-p)))*sec(a-I*ln(c*x^n)/n/(2-p))^p
/exp(2*I*a)/(1-p)/((c*x^n)^(2/n/(2-p)))
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 95, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4599, 4603, 267}

$$\int \sec^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = \frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1+e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\sec^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[In] Int[Sec[a + (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] ((2 - p)*x*(1 + E^((2*I)*a)*(c*x^n)^(2/(n*(2 - p))))*Sec[a - (I*Log[c*x^n])
/(n*(2 - p))]^p)/(2*E^((2*I)*a)*(1 - p)*(c*x^n)^(2/(n*(2 - p))))
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^p\left(a+\frac{i\log(x)}{n(-2+p)}\right)dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}+\frac{p}{n(-2+p)}}\left(1+e^{2ia}(cx^n)^{-\frac{2}{n(-2+p)}}\right)^p\sec^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}-\frac{p}{n(-2+p)}}\left(1+e^{2ia}x\right.\right.}{n}$$

$$= \frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1+e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\sec^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

Mathematica [A] (warning: unable to verify)

Time = 1.22 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.23

$$\int\sec^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)dx = \frac{2^{-1+p}e^{-ia}(-2+p)x(cx^n)^{\frac{1}{n(-2+p)}}\left(\frac{e^{\frac{ia(2+p)}{-2+p}}(cx^n)^{\frac{1}{n(-2+p)}}}{e^{\frac{2iap}{-2+p}}+e^{\frac{4ia}{-2+p}}(cx^n)^{\frac{2}{n(-2+p)}}}\right)^{-1+p}}{-1+p}$$

```
[In] Integrate[Sec[a + (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] (2^(-1 + p)*(-2 + p)*x*(c*x^n)^(1/(n*(-2 + p)))*((E^((I*a*(2 + p))/(-2 + p)
)*(c*x^n)^(1/(n*(-2 + p))))/(E^(((2*I)*a*p)/(-2 + p)) + E^(((4*I)*a)/(-2 +
p))*(c*x^n)^(2/(n*(-2 + p)))))^(-1 + p))/(E^(I*a)*(-1 + p))
```

Maple [F]

$$\int \sec\left(a+\frac{i\ln(c\,x^n)}{n\,(-2+p)}\right)^p dx$$

```
[In] int(sec(a+I*ln(c*x^n)/n/(-2+p))^p,x)
```

```
[Out] int(sec(a+I*ln(c*x^n)/n/(-2+p))^p,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.25 (sec) , antiderivative size = 149, normalized size of antiderivative = 1.57

$$\int \sec^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)dx = \frac{\left((p-2)xe^{\left(\frac{2\,(i\,anp-2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}+(p-2)x\right)\left(\frac{2\,e^{\left(\frac{i\,anp-2i\,an-n\log(x)-\log(c)}{np-2\,n}\right)}}{e^{\left(\frac{2\,(i\,anp-2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}+1}\right)^p e^{\left(-\frac{2\,(i\,anp-2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}}{2\,(p-1)}$$

```
[In] integrate(sec(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="fricas")
```

```
[Out] 1/2*((p - 2)*x*e^(2*(I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) +
(p - 2)*x)*(2*e^((I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(e^(2
*(I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) + 1))^p*e^(-2*(I*a*n*
p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(p - 1)
```

Sympy [F]

$$\int \sec^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)dx = \int \sec^p\left(a+\frac{i\log(cx^n)}{n\,(p-2)}\right)dx$$

```
[In] integrate(sec(a+I*ln(c*x**n)/n/(-2+p))**p,x)
```

```
[Out] Integral(sec(a + I*log(c*x**n)/(n*(p - 2)))**p, x)
```

Maxima [F]

$$\int \sec^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)dx=\int \sec\left(a+\frac{i\ \log\left(cx^n\right)}{n(p-2)}\right)^p dx$$

```
[In] integrate(sec(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="maxima")
[Out] integrate(sec(a + I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Giac [F]

$$\int \sec^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)dx=\int \sec\left(a+\frac{i\ \log\left(cx^n\right)}{n(p-2)}\right)^p dx$$

```
[In] integrate(sec(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="giac")
[Out] integrate(sec(a + I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)dx=\int \left(\frac{1}{\cos\left(a+\frac{\ln(c\,x^n)\,1\mathrm{i}}{n\,(p-2)}\right)}\right)^p dx$$

```
[In] int((1/cos(a + (log(c*x^n)*1i)/(n*(p - 2))))^p,x)
[Out] int((1/cos(a + (log(c*x^n)*1i)/(n*(p - 2))))^p, x)
```

3.265 $\int \sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx$

Optimal result 2501
Rubi [A] (verified) 2501
Mathematica [A] (warning: unable to verify) 2502
Maple [F] 2503
Fricas [B] (verification not implemented) 2503
Sympy [F] 2503
Maxima [F] 2504
Giac [F] 2504
Mupad [F(-1)] 2504

Optimal result

Integrand size = 23, antiderivative size = 70

$$\int \sec^p\left(a-\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\frac{(2-p)x\left(1+e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\sec^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[Out] 1/2*(2-p)*x*(1+exp(2*I*a)/((c*x^n)^(2/n/(2-p))))*sec(a+I*ln(c*x^n)/n/(2-p))
^p/(1-p)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 70, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4599, 4603, 270}

$$\int \sec^p\left(a-\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\frac{(2-p)x\left(1+e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\sec^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[In] Int[Sec[a - (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] ((2 - p)*x*(1 + E^((2*I)*a)/(c*x^n)^(2/(n*(2 - p))))*Sec[a + (I*Log[c*x^n])
/(n*(2 - p))]^p)/(2*(1 - p))
```

Rule 270

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*
x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] /; FreeQ[{a, b, c, m, n,
 p}, x] && EqQ[(m + 1)/n + p + 1, 0] && NeQ[m, -1]
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^p\left(a-\frac{i\log(x)}{n(-2+p)}\right)\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}-\frac{p}{n(-2+p)}}\left(1+e^{2ia}(cx^n)^{\frac{2}{n(-2+p)}}\right)^p\sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}+\frac{p}{n(-2+p)}}\left(1+e^{2ia}x^{\cdots}\right.\right.}{n}$$

$$= \frac{(2-p)x\left(1+e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\sec^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

Mathematica [A] (warning: unable to verify)

Time = 1.25 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.67

$$\int\sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)dx = \frac{2^{-1+p}e^{ia}(-2+p)x(cx^n)^{\frac{1}{n(-2+p)}}\left(\frac{e^{\frac{ia(2+p)}{-2+p}}(cx^n)^{\frac{1}{n(-2+p)}}}{e^{\frac{4ia}{-2+p}}+e^{\frac{2iap}{-2+p}}(cx^n)^{\frac{2}{n(-2+p)}}}\right)^{-1+p}}{-1+p}$$

```
[In] Integrate[Sec[a - (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] (2^(-1 + p)*E^(I*a)*(-2 + p)*x*(c*x^n)^(1/(n*(-2 + p)))*((E^((I*a*(2 + p))/
(-2 + p))*(c*x^n)^(1/(n*(-2 + p))))/(E^(((4*I)*a)/(-2 + p)) + E^(((2*I)*a*p
)/(-2 + p))*(c*x^n)^(2/(n*(-2 + p)))))^(-1 + p))/(-1 + p)
```

Maple [F]

$$\int \sec\left(a - \frac{i\ln\left(c\,x^{n}\right)}{n\left(-2+p\right)}\right)^{p} dx$$

`[In] int(sec(a-I*ln(c*x^n)/n/(-2+p))^p,x)`

`[Out] int(sec(a-I*ln(c*x^n)/n/(-2+p))^p,x)`

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 149 vs. 2(55) = 110.

Time = 0.26 (sec) , antiderivative size = 149, normalized size of antiderivative = 2.13

$$\int \sec^{p}\left(a - \frac{i\log\left(cx^{n}\right)}{n(-2+p)}\right) dx$$
$$= \frac{\left((p-2)xe^{\left(\frac{2\left(-i\,anp+2i\,an-n\log(x)-\log(c)\right)}{np-2\,n}\right)} + (p-2)x\right)\left(\frac{2\,e^{\left(\frac{-i\,anp+2i\,an-n\log(x)-\log(c)}{np-2\,n}\right)}}{e^{\left(\frac{2\left(-i\,anp+2i\,an-n\log(x)-\log(c)\right)}{np-2\,n}\right)}+1}\right)^{p} e^{\left(-\frac{2\left(-i\,anp+2i\,an-n\log(x)-\log(c)\right)}{np-2\,n}\right)}}{2\left(p-1\right)}$$

`[In] integrate(sec(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="fricas")`

```
[Out] 1/2*((p - 2)*x*e^(2*(-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) +
 (p - 2)*x)*(2*e^((-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(e^
(2*(-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) + 1))^p*e^(-2*(-I*
a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(p - 1)
```

Sympy [F]

$$\int \sec^{p}\left(a - \frac{i\log\left(cx^{n}\right)}{n(-2+p)}\right) dx = \int \sec^{p}\left(a - \frac{i\log\left(cx^{n}\right)}{n\left(p-2\right)}\right) dx$$

`[In] integrate(sec(a-I*ln(c*x**n)/n/(-2+p))**p,x)`

`[Out] Integral(sec(a - I*log(c*x**n)/(n*(p - 2)))**p, x)`

Maxima [F]

$$\int \sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx=\int \sec\left(a-\frac{i\,\log(cx^n)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(sec(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="maxima")
[Out] integrate(sec(-a + I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Giac [F]

$$\int \sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx=\int \sec\left(a-\frac{i\,\log(cx^n)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(sec(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="giac")
[Out] integrate(sec(a - I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx=\int \left(\frac{1}{\cos\left(a-\frac{\ln(c\,x^n)\,1\mathrm{i}}{n\,(p-2)}\right)}\right)^p\,dx$$

```
[In] int((1/cos(a - (log(c*x^n)*1i)/(n*(p - 2))))^p,x)
[Out] int((1/cos(a - (log(c*x^n)*1i)/(n*(p - 2))))^p, x)
```

3.266 $\int \sqrt{\sec (a+b \log (c x^n))} \, dx$

Optimal result 2505
Rubi [A] (verified) 2505
Mathematica [A] (verified) 2506
Maple [F] 2507
Fricas [F(-2)] 2507
Sympy [F] 2507
Maxima [F] 2507
Giac [F] 2508
Mupad [F(-1)] 2508

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \sqrt{\sec (a+b \log (c x^n))} \, dx = \frac{2x\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec (a+b \log (cx^n))}}{2+ibn}$$

```
[Out] 2*x*hypergeom([1/2, 1/4-1/2*I/b/n],[5/4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I
*b))*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)*sec(a+b*ln(c*x^n))^(1/2)/(2+I*b*n
)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4599, 4603, 371}

$$\int \sqrt{\sec (a+b \log (c x^n))} \, dx = \frac{2x\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec (a+b \log (cx^n))}}{2+ibn}$$

```
[In] Int[Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, (1 - (2
*I)/(b*n))/4, (5 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[S
ec[a + b*Log[c*x^n]]])/(2 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sqrt{\sec(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{ib}{2}-\frac{1}{n}}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{ib}{2}+\frac{1}{n}}}{\sqrt{1+e^{2ia}x^{2ib}}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{2x\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec\left(a+b\log\right.}}{2+ibn}$$

Mathematica [A] (verified)

Time = 0.27 (sec) , antiderivative size = 99, normalized size of antiderivative = 0.91

$$\int\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\,dx = -\frac{2i\left(1+e^{2i(a+b\log(cx^n))}\right)x\,\text{Hypergeometric2F1}\left(1,\frac{3}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{-2i+bn}$$

```
[In] Integrate[Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] ((-2*I)*(1 + E^((2*I)*(a + b*Log[c*x^n])))*x*Hypergeometric2F1[1, 3/4 - (I/
2)/(b*n), 5/4 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))]*Sqrt[Sec[a + b*
Log[c*x^n]]])/(-2*I + b*n)
```

Maple [F]

$$\int \sqrt{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^(1/2),x)
[Out] int(sec(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(sqrt(sec(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \sqrt{\sec\left(b\log\left(cx^{n}\right)+a\right)}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(sqrt(sec(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \sqrt{\sec(a+b\log(cx^n))}\,dx = \int \sqrt{\sec(b\log(cx^n)+a)}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(sqrt(sec(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sqrt{\sec(a+b\log(cx^n))}\,dx = \int \sqrt{\frac{1}{\cos(a+b\,\ln(c\,x^n))}}\,dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(1/2),x)
[Out] int((1/cos(a + b*log(c*x^n)))^(1/2), x)
```

3.267 $\int \frac{\sqrt{\sec(a+b\log(cx^n))}}{x}\,dx$

Optimal result 2509
Rubi [A] (verified) 2509
Mathematica [A] (verified) 2510
Maple [B] (verified) 2510
Fricas [C] (verification not implemented) 2511
Sympy [F] 2511
Maxima [F] 2512
Giac [F] 2512
Mupad [B] (verification not implemented) 2512

Optimal result

Integrand size = 19, antiderivative size = 54

$$\int \frac{\sqrt{\sec(a+b\log(cx^n))}}{x}\,dx = \frac{2\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)\sqrt{\sec(a+b\log(cx^n))}}{bn}$$

```
[Out] 2*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticF
(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*
x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {3856, 2720}

$$\int \frac{\sqrt{\sec(a+b\log(cx^n))}}{x}\,dx = \frac{2\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{bn}$$

```
[In] Int[Sqrt[Sec[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] (2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticF[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \sqrt{\sec(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$= \frac{\left(\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}$$

$$= \frac{2\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)\right), 2\right)\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{bn}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.00

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx = \frac{2\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)\right), 2\right)\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{bn}$$

```
[In] Integrate[Sqrt[Sec[a + b*Log[c*x^n]]]/x,x]
[Out] (2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticF[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 180 vs. 2(86) = 172.

Time = 1.44 (sec) , antiderivative size = 181, normalized size of antiderivative = 3.35

method	result
derivativedivides	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\text{EllipticF}(}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}}$
default	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\text{EllipticF}(}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}}$

```
[In] int(sec(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] -2/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2
)*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-2*cos(1/2*a+1/2*b*ln(c*x^n))^2+1)^
(1/2)/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*
EllipticF(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/sin(1/2*a+1/2*b*ln(c*x^n))/(2
*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 78, normalized size of antiderivative = 1.44

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx$$
$$= \frac{-i\sqrt{2}\text{weierstrassPInverse}(-4,0,\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+i\,\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right))+i\sqrt{2}}{bn}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")
```

```
[Out] (-I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) + I*s
in(b*n*log(x) + b*log(c) + a)) + I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b
*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx = \int \frac{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(1/2)/x,x)
```

```
[Out] Integral(sqrt(sec(a + b*log(c*x**n)))/x, x)
```

Maxima [F]

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx = \int \frac{\sqrt{\sec\left(b\log\left(cx^{n}\right)+a\right)}}{x}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")
[Out] integrate(sqrt(sec(b*log(c*x^n) + a))/x, x)
```

Giac [F]

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx = \int \frac{\sqrt{\sec\left(b\log\left(cx^{n}\right)+a\right)}}{x}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")
[Out] integrate(sqrt(sec(b*log(c*x^n) + a))/x, x)
```

Mupad [B] (verification not implemented)

Time = 26.66 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.94

$$\int \frac{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}{x}\,dx = \frac{2\sqrt{\cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)}\,\sqrt{\frac{1}{\cos\left(a+b\,\ln\left(c\,x^{n}\right)\right)}}\,\mathrm{F}\left(\frac{a}{2}+\frac{b\,\ln\left(c\,x^{n}\right)}{2}\middle|2\right)}{b\,n}$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(1/2)/x,x)
[Out] (2*cos(a + b*log(c*x^n))^(1/2)*(1/cos(a + b*log(c*x^n)))^(1/2)*ellipticF(a/
2 + (b*log(c*x^n))/2, 2))/(b*n)
```

3.268 $\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result . . . 2513
Rubi [A] (verified) . . . 2513
Mathematica [B] (verified) . . . 2514
Maple [F] . . . 2515
Fricas [F(-2)] . . . 2515
Sympy [F] . . . 2515
Maxima [F] . . . 2516
Giac [F(-1)] . . . 2516
Mupad [F(-1)] . . . 2516

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{3}{2}}(a+b\log(cx^n))}{2+3ibn}$$

```
[Out] 2*x*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*hypergeom([3/2, 3/4-1/2*I/b/n],[7/
4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*sec(a+b*ln(c*x^n))^(3/2)/(2+3*I*b
*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4599, 4603, 371}

$$\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{3}{2}}(a+b\log(cx^n))}{2+3ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Hypergeometric2F1[3/2, (3 -
(2*I)/(b*n))/4, (7 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[
a + b*Log[c*x^n]]^(3/2))/(2 + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^{\frac{3}{2}}(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{3ib}{2}-\frac{1}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{3ib}{2}+\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^{3/2}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{3}{2}}(a+b\log}{2+3ibn}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 415 vs. 2(109) = 218.

Time = 4.87 (sec) , antiderivative size = 415, normalized size of antiderivative = 3.81

$$\int\sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx$$

$$= \frac{\sqrt{2}x^{1-ibn}\left(-\left(\left(4+b^2n^2\right)x^{2ibn}\sqrt{\frac{e^{ia}(cx^n)^{ib}}{1+e^{2ia}(cx^n)^{2ib}}}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},-e\right.\right.\right.}{}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (Sqrt[2]*x^(1 - I*b*n)*(-((4 + b^2*n^2)*x^((2*I)*b*n)*Sqrt[(E^(I*a)*(c*x^n)
^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[1 + E^((2*I)*a)*(c*x^n)^(
(2*I)*b)]*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n), -(E^
((2*I)*a)*(c*x^n)^((2*I)*b))]) + (-2*I + 3*b*n)*((2*I - b*n)*Sqrt[(E^(I*a)*
(c*x^n)^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[1 + E^((2*I)*a)*(c
*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)
/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] + Sqrt[2]*x^(I*b*n)*Sqrt[Sec[a +
b*Log[c*x^n]]]*(b*n*Cos[b*n*Log[x]] - 2*Sin[b*n*Log[x]]))))/(b*n*(-2*I + 3*
b*n)*(-2*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n*Sin[a - b*n*Log[x] + b*Lo
g[c*x^n]]))
```

Maple [F]

$$\int \sec \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(sec(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(sec(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\ dx = \int \sec(b\log(cx^n)+a)^{\frac{3}{2}}\ dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\ dx = \text{Timed out}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \sec^{\frac{3}{2}}(a+b\log(cx^n))\ dx = \int \left(\frac{1}{\cos(a+b\ln(c\,x^n))}\right)^{3/2} dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(3/2),x)
[Out] int((1/cos(a + b*log(c*x^n)))^(3/2), x)
```

3.269 $\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x} dx$

Optimal result . . . 2517
Rubi [A] (verified) . . . 2517
Mathematica [A] (verified) . . . 2519
Maple [B] (verified) . . . 2519
Fricas [C] (verification not implemented) . . . 2520
Sympy [F] . . . 2520
Maxima [F] . . . 2520
Giac [F(-1)] . . . 2521
Mupad [F(-1)] . . . 2521

Optimal result

Integrand size = 19, antiderivative size = 89

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{bn} + \frac{2\sqrt{\sec(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{bn}$$

```
[Out] 2*sin(a+b*ln(c*x^n))*sec(a+b*ln(c*x^n))^(1/2)/b/n-2*(cos(1/2*a+1/2*b*ln(c*x
^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticE(sin(1/2*a+1/2*b*ln(c*x^n
)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 89, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {3853, 3856, 2719}

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sin(a+b\log(cx^n))\sqrt{\sec(a+b\log(cx^n))}}{bn} - \frac{2\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] (-2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticE[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec
[a + b*Log[c*x^n]]])/(b*n) + (2*Sqrt[Sec[a + b*Log[c*x^n]]]*Sin[a + b*Log[c
*x^n]])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sec^{\frac{3}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\
&= \frac{2\sqrt{\sec(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{bn} - \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\sec(a+bx)}}\,dx, x, \log(cx^n)\right)}{n} \\
&= \frac{2\sqrt{\sec(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{bn} \\
&\quad - \frac{\left(\sqrt{\cos(a+b\log(cx^n))}\sqrt{\sec(a+b\log(cx^n))}\right)\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx, x, \log(cx^n)\right)}{n} \\
&= -\frac{2\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{bn} \\
&\quad + \frac{2\sqrt{\sec(a+b\log(cx^n))}\sin(a+b\log(cx^n))}{bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.12 (sec) , antiderivative size = 68, normalized size of antiderivative = 0.76

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sqrt{\sec(a+b\log(cx^n))}\left(-\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)+\sin(a+b\log(cx^n))\right)}{bn}$$

[In] Integrate[Sec[a + b*Log[c*x^n]]^(3/2)/x,x]

[Out] (2*Sqrt[Sec[a + b*Log[c*x^n]]]*(-(Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticE[(a + b*Log[c*x^n])/2, 2]) + Sin[a + b*Log[c*x^n]]))/(b*n)

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 249 vs. 2(119) = 238.

Time = 1.85 (sec) , antiderivative size = 250, normalized size of antiderivative = 2.81

method	result
derivativedivides	$-\frac{2\left(-2\cos\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2+\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{cx^n}\right)\right)}{2}}}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}}$
default	$-\frac{2\left(-2\cos\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2+\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{cx^n}\right)\right)}{2}}}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(cx^n)}{2}\right)^2}}$

[In] int(sec(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)

[Out] -2/n*(-2*cos(1/2*a+1/2*b*ln(c*x^n))*(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*sin(1/2*a+1/2*b*ln(c*x^n))^2+(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticE(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.10 (sec) , antiderivative size = 112, normalized size of antiderivative = 1.26

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x} dx$$
$$= \frac{-i\sqrt{2}\text{weierstrassZeta}(-4,0,\text{weierstrassPInverse}(-4,0,\cos(bn\log(x)+b\log(c)+a)+i\sin(bn\log(x)+\dots}{}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
[Out] (-I*sqrt(2)*weierstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x
) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) + I*sqrt(2)*weierstr
assZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) -
I*sin(b*n*log(x) + b*log(c) + a))) + 2*sin(b*n*log(x) + b*log(c) + a)/sqrt(
cos(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x} dx = \int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x} dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(3/2)/x,x)
[Out] Integral(sec(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x} dx = \int \frac{\sec(b\log(cx^n)+a)^{\frac{3}{2}}}{x} dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)^(3/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\left(\frac{1}{\cos(a+b\,\ln(c\,x^n))}\right)^{3/2}}{x}\,dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(3/2)/x,x)
[Out] int((1/cos(a + b*log(c*x^n)))^(3/2)/x, x)
```

3.270 $\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx$

Optimal result 2522
Rubi [A] (verified) 2522
Mathematica [A] (verified) 2523
Maple [F] 2524
Fricas [F(-2)] 2524
Sympy [F(-1)] 2524
Maxima [F] 2524
Giac [F(-1)] 2525
Mupad [F(-1)] 2525

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{5}{2}}(a+b\log(cx^n))}{2+5ibn}$$

```
[Out] 2*x*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*hypergeom([5/2, 5/4-1/2*I/b/n],[9/
4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*sec(a+b*ln(c*x^n))^(5/2)/(2+5*I*b
*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4599, 4603, 371}

$$\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{5}{2}}(a+b\log(cx^n))}{2+5ibn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Hypergeometric2F1[5/2, (5 -
(2*I)/(b*n))/4, (9 - (2*I)/(b*n))/4, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[
a + b*Log[c*x^n]]^(5/2))/(2 + (5*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sec^{\frac{5}{2}}(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{5ib}{2}-\frac{1}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ib}{2}+\frac{1}{n}}}{(1+e^{2ia}x^{2ib})^{5/2}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{2x\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{5}{2}}(a+b\ldots}{2+5ibn}$$

Mathematica [A] (verified)

Time = 0.97 (sec) , antiderivative size = 124, normalized size of antiderivative = 1.14

$$\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx$$
$$= \frac{2x\sqrt{\sec(a+b\log(cx^n))}\left(-2+(2-ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)\text{Hypergeometric2F1}\left(1,\frac{3}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i\ldots}\right.\right.}{3b^2n^2}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x*Sqrt[Sec[a + b*Log[c*x^n]]]*(-2 + (2 - I*b*n)*(1 + E^((2*I)*a)*(c*x^n)
^((2*I)*b))*Hypergeometric2F1[1, 3/4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), -E^(
(2*I)*(a + b*Log[c*x^n]))] + b*n*Tan[a + b*Log[c*x^n]]))/(3*b^2*n^2)
```

Maple [F]

$$\int \sec \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{5}{2}}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^(5/2),x)
[Out] int(sec(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sec^{\frac{5}{2}}\left(a+b\log \left(cx^{n}\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int \sec^{\frac{5}{2}}\left(a+b\log \left(cx^{n}\right)\right)\,dx=\text{Timed out}$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(5/2),x)
[Out] Timed out
```

Maxima [F]

$$\int \sec^{\frac{5}{2}}\left(a+b\log \left(cx^{n}\right)\right)\,dx=\int \sec \left(b\log \left(cx^{n}\right)+a\right)^{\frac{5}{2}}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)^(5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \int \left(\frac{1}{\cos(a+b\,\ln(c\,x^n))}\right)^{5/2}dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(5/2),x)
[Out] int((1/cos(a + b*log(c*x^n)))^(5/2), x)
```

3.271 $\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 2526
Rubi [A] (verified) 2526
Mathematica [A] (verified) 2528
Maple [B] (verified) 2528
Fricas [C] (verification not implemented) 2529
Sympy [F(-1)] 2529
Maxima [F] 2529
Giac [F(-1)] 2530
Mupad [F(-1)] 2530

Optimal result

Integrand size = 19, antiderivative size = 93

$$\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)\sqrt{\sec(a+b\log(cx^n))}}{3bn} + \frac{2\sec^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3bn}$$

```
[Out] 2/3*sec(a+b*ln(c*x^n))^(3/2)*sin(a+b*ln(c*x^n))/b/n+2/3*(cos(1/2*a+1/2*b*ln
(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticF(sin(1/2*a+1/2*b*ln(c
*x^n)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 93, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {3853, 3856, 2720}

$$\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sin(a+b\log(cx^n))\sec^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{2\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] (2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticF[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(3*b*n) + (2*Sec[a + b*Log[c*x^n]]^(3/2)*Sin[a + b*Log[
c*x^n]])/(3*b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \sec^{\frac{5}{2}}(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\
&= \frac{2\sec^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3bn} + \frac{\text{Subst}\left(\int \sqrt{\sec(a+bx)}\,dx, x, \log(cx^n)\right)}{3n}\\
&= \frac{2\sec^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3bn}\\
&\quad + \frac{\left(\sqrt{\cos(a+b\log(cx^n))}\sqrt{\sec(a+b\log(cx^n))}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx, x, \log(cx^n)\right)}{3n}\\
&= \frac{2\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)), 2\right)\sqrt{\sec(a+b\log(cx^n))}}{3bn}\\
&\quad + \frac{2\sec^{\frac{3}{2}}(a+b\log(cx^n))\sin(a+b\log(cx^n))}{3bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.16 (sec) , antiderivative size = 69, normalized size of antiderivative = 0.74

$$\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{2\sec^{\frac{3}{2}}(a+b\log(cx^n))\left(\cos^{\frac{3}{2}}(a+b\log(cx^n))\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)+\sin(a+b\log(cx^n))\right)}{3bn}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^(5/2)/x,x]
[Out] (2*Sec[a + b*Log[c*x^n]]^(3/2)*(Cos[a + b*Log[c*x^n]]^(3/2)*EllipticF[(a +
b*Log[c*x^n])/2, 2] + Sin[a + b*Log[c*x^n]]))/(3*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 290 vs. 2(119) = 238.

Time = 20.80 (sec) , antiderivative size = 291, normalized size of antiderivative = 3.13

method	result
derivativedivides	$-\frac{2\left(-2\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^{n}}\right)\right)}{2}}\sqrt{-1+2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\,\text{EllipticF}\left(\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right),\sqrt{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-2 \cdots\right.}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b \cdots}{}\right.}}$
default	$-\frac{2\left(-2\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^{n}}\right)\right)}{2}}\sqrt{-1+2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\,\text{EllipticF}\left(\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right),\sqrt{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-2 \cdots\right.}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b \cdots}{}\right.}}$

```
[In] int(sec(a+b*ln(c*x^n))^(5/2)/x,x,method=_RETURNVERBOSE)
[Out] -2/3/n*(-2*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*
x^n))^2)^(1/2)*EllipticF(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))*sin(1/2*a+1/2*
b*ln(c*x^n))^2-2*sin(1/2*a+1/2*b*ln(c*x^n))^2*cos(1/2*a+1/2*b*ln(c*x^n))+(s
in(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2
)*EllipticF(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2)))*((2*cos(1/2*a+1/2*b*ln(c*x
^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/(-2*sin(1/2*a+1/2*b*ln(c*x^n)
)^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^
(3/2)/sin(1/2*a+1/2*b*ln(c*x^n))/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 145, normalized size of antiderivative = 1.56

$$\int \frac{\sec^{\frac{5}{2}}(a + b\log(cx^n))}{x} dx$$
$$= \frac{-i\sqrt{2}\cos(bn\log(x) + b\log(c) + a)\,\text{weierstrassPInverse}(-4, 0, \cos(bn\log(x) + b\log(c) + a) + i\sin(bn}{}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2)/x,x, algorithm="fricas")
```

```
[Out] 1/3*(-I*sqrt(2)*cos(b*n*log(x) + b*log(c) + a)*weierstrassPInverse(-4, 0, c
os(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a)) + I*sqrt(
2)*cos(b*n*log(x) + b*log(c) + a)*weierstrassPInverse(-4, 0, cos(b*n*log(x)
 + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)) + 2*sin(b*n*log(x) + b
*log(c) + a)/sqrt(cos(b*n*log(x) + b*log(c) + a)))/(b*n*cos(b*n*log(x) + b*
log(c) + a))
```

Sympy [F(-1)]

Timed out.

$$\int \frac{\sec^{\frac{5}{2}}(a + b\log(cx^n))}{x} dx = \text{Timed out}$$

```
[In] integrate(sec(a+b*ln(c*x**n))**(5/2)/x,x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{\sec^{\frac{5}{2}}(a + b\log(cx^n))}{x} dx = \int \frac{\sec(b\log(cx^n) + a)^{\frac{5}{2}}}{x} dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2)/x,x, algorithm="maxima")
```

```
[Out] integrate(sec(b*log(c*x^n) + a)^(5/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx=\text{Timed out}$$

```
[In] integrate(sec(a+b*log(c*x^n))^(5/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\sec^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx=\int \frac{\left(\frac{1}{\cos(a+b\,\ln(c\,x^n))}\right)^{5/2}}{x}\,dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^(5/2)/x,x)
[Out] int((1/cos(a + b*log(c*x^n)))^(5/2)/x, x)
```

3.272 $\int \frac{1}{\sqrt{\sec(a+b\log(cx^n))}}\,dx$

Optimal result 2531
Rubi [A] (verified) 2531
Mathematica [B] (verified) 2532
Maple [F] 2533
Fricas [F(-2)] 2533
Sympy [F] 2533
Maxima [F] 2534
Giac [F] 2534
Mupad [F(-1)] 2534

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \frac{1}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}\sqrt{\sec(a+b\log(cx^n))}}$$

```
[Out] 2*x*hypergeom([-1/2, 1/4*(-2*I-b*n)/b/n],[3/4-1/2*I/b/n],-exp(2*I*a)*(c*x^n
)^(2*I*b))/(2-I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)/sec(a+b*ln(c*x^n)
)^(1/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4599, 4603, 371}

$$\int \frac{1}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{bn+2i}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}\sqrt{\sec(a+b\log(cx^n))}}$$

```
[In] Int[1/Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Hypergeometric2F1[-1/2, -1/4*(2*I + b*n)/(b*n), (3 - (2*I)/(b*n))/4, -
(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - I*b*n)*Sqrt[1 + E^((2*I)*a)*(c*x^n)
^((2*I)*b)]*Sqrt[Sec[a + b*Log[c*x^n]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sqrt{\sec(a+b\log(x))}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{\frac{ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1}{n}}\sqrt{1+e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{n\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}$$

$$= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2}, -\frac{2i+bn}{4bn}, \frac{1}{4}\left(3-\frac{2i}{bn}\right), -e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 380 vs. 2(110) = 220.

Time = 3.48 (sec) , antiderivative size = 380, normalized size of antiderivative = 3.45

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx$$
$$= \frac{2be^{2ia}nx(cx^n)^{2ib}\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2}, \frac{3}{4}-\frac{i}{2bn}, \frac{7}{4}-\frac{i}{2bn}, -e^{2ia}(cx^n)^{2ib}\right)+(-2i+3bn)\,\text{Hy}\right.}{(2i+bn)(-2i+3bn)\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\frac{e^{ia}(cx^n)^{ib}}{2+2e^{2ia}(cx^n)^{2ib}}}\left((-2+ibn)x^{2ibn}-ie\right.}$$
$$-\frac{2x\cos\left(a-bn\log(x)+b\log\left(cx^n\right)\right)}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\left(-2\cos\left(a-bn\log(x)+b\log\left(cx^n\right)\right)+bn\sin\left(a-bn\log(x)+b\log\left(cx^n\right)\right)\right)}$$

```
[In] Integrate[1/Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*b*E^((2*I)*a)*n*x*(c*x^n)^((2*I)*b)*((2*I + b*n)*x^((2*I)*b*n)*Hypergeom
etric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n), -(E^((2*I)*a)*(c*x^n)^(
(2*I)*b))] + (-2*I + 3*b*n)*Hypergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n),
3/4 - (I/2)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]))/((2*I + b*n)*(-2*I +
 3*b*n)*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[(E^(I*a)*(c*x^n)^(I*b)
)/(2 + 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))]*((-2 + I*b*n)*x^((2*I)*b*n) - I*E^
((2*I)*a)*(-2*I + b*n)*(c*x^n)^((2*I)*b))) - (2*x*Cos[a - b*n*Log[x] + b*Lo
g[c*x^n]])/(Sqrt[Sec[a + b*Log[c*x^n]]]*(-2*Cos[a - b*n*Log[x] + b*Log[c*x^
n]] + b*n*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \frac{1}{\sqrt{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)}}dx$$

```
[In] int(1/sec(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(1/sec(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^{n}\right)\right)}}\,dx$$

```
[In] integrate(1/sec(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(1/sqrt(sec(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{1}{\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/sqrt(sec(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{1}{\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/sqrt(sec(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{1}{\sqrt{\frac{1}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)}}}\,dx$$

```
[In] int(1/(1/cos(a + b*log(c*x^n)))^(1/2),x)
[Out] int(1/(1/cos(a + b*log(c*x^n)))^(1/2), x)
```

3.273 $\int \frac{1}{x\sqrt{\sec(a+b\log(cx^n))}}\,dx$

Optimal result 2535
Rubi [A] (verified) 2535
Mathematica [A] (verified) 2536
Maple [B] (verified) 2536
Fricas [C] (verification not implemented) 2537
Sympy [F] 2537
Maxima [F] 2538
Giac [F] 2538
Mupad [F(-1)] 2538

Optimal result

Integrand size = 19, antiderivative size = 54

$$\int \frac{1}{x\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{bn}$$

```
[Out] 2*(cos(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticE
(sin(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*
x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {3856, 2719}

$$\int \frac{1}{x\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn}$$

```
[In] Int[1/(x*Sqrt[Sec[a + b*Log[c*x^n]]]),x]
```

```
[Out] (2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticE[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\sec(a+bx)}}\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{\left(\sqrt{\cos(a+b\log(cx^n))}\sqrt{\sec(a+b\log(cx^n))}\right)\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx, x, \log(cx^n)\right)}{n}\\ &= \frac{2\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 54, normalized size of antiderivative = 1.00

$$\int \frac{1}{x\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{bn\sqrt{\cos(a+b\log(cx^n))}\sqrt{\sec(a+b\log(cx^n))}}$$

```
[In] Integrate[1/(x*Sqrt[Sec[a + b*Log[c*x^n]]]),x]
[Out] (2*EllipticE[(a + b*Log[c*x^n])/2, 2])/(b*n*Sqrt[Cos[a + b*Log[c*x^n]]]*Sqr
t[Sec[a + b*Log[c*x^n]]])
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 180 vs. 2(86) = 172.

Time = 1.69 (sec) , antiderivative size = 181, normalized size of antiderivative = 3.35

method	result
derivativedivides	$\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\text{EllipticE}\left(\text{co}\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}\,b}$
default	$\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sqrt{\frac{1}{2}-\frac{\cos\left(a+2b\ln\left(\sqrt{c\,x^n}\right)\right)}{2}}\sqrt{-2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2+1}\,\text{EllipticE}\left(\text{co}\right.}{n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sqrt{2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1}\,b}$

```
[In] int(1/x/sec(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
```

```
[Out] 2/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)
*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-2*cos(1/2*a+1/2*b*ln(c*x^n))^2+1)^(
1/2)*EllipticE(cos(1/2*a+1/2*b*ln(c*x^n)),2^(1/2))/(-2*sin(1/2*a+1/2*b*ln(c
*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*
cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.56

$$\int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx = \frac{i\sqrt{2}\text{weierstrassZeta}(-4,0,\text{weierstrassPInverse}(-4,0,\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+i\,\sin\left(bn\log\left(x\right)+\right.}{}$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] (I*sqrt(2)*weierstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x)
 + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) - I*sqrt(2)*weierstra
ssZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) - I
*sin(b*n*log(x) + b*log(c) + a))))/(b*n)
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx$$

```
[In] integrate(1/x/sec(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(1/(x*sqrt(sec(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/(x*sqrt(sec(b*log(c*x^n) + a))), x)
```

Giac [F]

$$\int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/(x*sqrt(sec(b*log(c*x^n) + a))), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\,\sqrt{\frac{1}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)}}}\,dx$$

```
[In] int(1/(x*(1/cos(a + b*log(c*x^n)))^(1/2)),x)
[Out] int(1/(x*(1/cos(a + b*log(c*x^n)))^(1/2)), x)
```

3.274 $\int \frac{1}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2539
Rubi [A] (verified) 2539
Mathematica [A] (verified) 2540
Maple [F] 2541
Fricas [F(-2)] 2541
Sympy [F] 2541
Maxima [F] 2541
Giac [F] 2542
Mupad [F(-1)] 2542

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*hypergeom([-3/2, -3/4-1/2*I/b/n],[1/4-1/2*I/b/n],-exp(2*I*a)*(c*x^n)^(2
*I*b))/(2-3*I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)/sec(a+b*ln(c*x^n))^
(3/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4599, 4603, 371}

$$\int \frac{1}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (2*x*Hypergeometric2F1[-3/2, (-3 - (2*I)/(b*n))/4, (1 - (2*I)/(b*n))/4, -(E
^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - (3*I)*b*n)*(1 + E^((2*I)*a)*(c*x^n)^(
(2*I)*b))^(3/2)*Sec[a + b*Log[c*x^n]]^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sec^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}\\ &= \frac{\left(x(cx^n)^{\frac{3ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1}{n}}\left(1+e^{2ia}x^{2ib}\right)^{3/2}\,dx, x, cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\\ &= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),-e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\end{aligned}$$

Mathematica [A] (verified)

Time = 1.12 (sec) , antiderivative size = 168, normalized size of antiderivative = 1.54

$$\int \frac{1}{\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\,dx = \frac{2x\left(3b^2n^2\left(1+e^{2ia}(cx^n)^{2ib}\right)\text{Hypergeometric2F1}\left(1,\frac{3}{4}-\frac{i}{2bn},\frac{5}{4}-\frac{i}{2bn},-e^{2i(a+b\log(cx^n))}\right)\sec^2\left(a+b\log\left(cx^n\right)\right)\right.}{(2+3ibn)(-2i+bn)(2i+3bn)\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (2*x*(3*b^2*n^2*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Hypergeometric2F1[1, 3/
4 - (I/2)/(b*n), 5/4 - (I/2)/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))]*Sec[a +
b*Log[c*x^n]]^2 + (2 + I*b*n)*(2 + 3*b*n*Tan[a + b*Log[c*x^n]])))/((2 + (3*
I)*b*n)*(-2*I + b*n)*(2*I + 3*b*n)*Sec[a + b*Log[c*x^n]]^(3/2))
```

Maple [F]

$$\int \frac{1}{\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(1/sec(a+b*ln(c*x^n))^(3/2),x)
[Out] int(1/sec(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{1}{\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx$$

```
[In] integrate(1/sec(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(sec(a + b*log(c*x**n))**(-3/2), x)
```

Maxima [F]

$$\int \frac{1}{\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{\sec\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)^(-3/2), x)
```

Giac [F]

$$\int \frac{1}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sec(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^(-3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\left(\frac{1}{\cos(a+b\ln(c\,x^n))}\right)^{3/2}}\,dx$$

```
[In] int(1/(1/cos(a + b*log(c*x^n)))^(3/2),x)
[Out] int(1/(1/cos(a + b*log(c*x^n)))^(3/2), x)
```

3.275 $\int \frac{1}{x \sec^{\frac{3}{2}}(a+b \log(cx^n))} dx$

Optimal result . . . 2543
Rubi [A] (verified) . . . 2543
Mathematica [A] (verified) . . . 2545
Maple [B] (verified) . . . 2545
Fricas [C] (verification not implemented) . . . 2546
Sympy [F] . . . 2546
Maxima [F] . . . 2546
Giac [F] . . . 2547
Mupad [F(-1)] . . . 2547

Optimal result

Integrand size = 19, antiderivative size = 93

$$\int \frac{1}{x \sec^{\frac{3}{2}}(a+b\log(cx^n))} dx = \frac{2\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)\sqrt{\sec(a+b\log(cx^n))}}{3bn} + \frac{2\sin(a+b\log(cx^n))}{3bn\sqrt{\sec(a+b\log(cx^n))}}$$

```
[Out] 2/3*sin(a+b*ln(c*x^n))/b/n/sec(a+b*ln(c*x^n))^(1/2)+2/3*(cos(1/2*a+1/2*b*ln
(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticF(sin(1/2*a+1/2*b*ln(c
*x^n)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 93, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {3854, 3856, 2720}

$$\int \frac{1}{x \sec^{\frac{3}{2}}(a+b\log(cx^n))} dx = \frac{2\sin(a+b\log(cx^n))}{3bn\sqrt{\sec(a+b\log(cx^n))}} + \frac{2\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)}{3bn}$$

```
[In] Int[1/(x*Sec[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticF[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(3*b*n) + (2*Sin[a + b*Log[c*x^n]])/(3*b*n*Sqrt[Sec[a +
 b*Log[c*x^n]]])
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3854

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Csc[c + d*x])^(n + 1)/(b*d*n)), x] + Dist[(n + 1)/(b^2*n), Int[(b*Csc[c +
 d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] && IntegerQ[2*n
]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sec^{\frac{3}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= \frac{2\sin\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}} + \frac{\text{Subst}\left(\int \sqrt{\sec(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{3n} \\
&= \frac{2\sin\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}} \\
&\quad + \frac{\left(\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\cos(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{3n} \\
&= \frac{2\sqrt{\cos\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log\left(cx^n\right)\right), 2\right)\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}{3bn} \\
&\quad + \frac{2\sin\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.13 (sec) , antiderivative size = 72, normalized size of antiderivative = 0.77

$$\int \frac{1}{x \sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{\sqrt{\sec(a+b\log(cx^n))}\left(2\sqrt{\cos(a+b\log(cx^n))}\,\mathrm{EllipticF}\left(\frac{1}{2}(a+b\log(cx^n)),2\right)+\sin(2(a+b\log(cx^n)))\right)}{3bn}$$

```
[In] Integrate[1/(x*Sec[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (Sqrt[Sec[a + b*Log[c*x^n]]]*(2*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticF[(a +
b*Log[c*x^n])/2, 2] + Sin[2*(a + b*Log[c*x^n])]))/(3*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 246 vs. 2(119) = 238.

Time = 2.30 (sec) , antiderivative size = 247, normalized size of antiderivative = 2.66

method	result
derivativedivides	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\left(4\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}}$
default	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}\left(4\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}{3n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^4+\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^n)}{2}\right)^2}}$

```
[In] int(1/x/sec(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
```

```
[Out] -2/3/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1
/2)*(4*cos(1/2*a+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^4-2*sin(1/2*a+
1/2*b*ln(c*x^n))^2*cos(1/2*a+1/2*b*ln(c*x^n))+(sin(1/2*a+1/2*b*ln(c*x^n))^2
)^(1/2)*(-1+2*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticF(cos(1/2*a+1/2*b
*ln(c*x^n)),2^(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c
*x^n))^2)^(1/2)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-
1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.15

$$\int \frac{1}{x\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{2\sqrt{\cos(bn\log(x)+b\log(c)+a)}\sin(bn\log(x)+b\log(c)+a) - i\sqrt{2}\text{weierstrassPInverse}(-4,0,\cos(bn\log(x)$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] 1/3*(2*sqrt(cos(b*n*log(x) + b*log(c) + a))*sin(b*n*log(x) + b*log(c) + a)
- I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a) + I*s
in(b*n*log(x) + b*log(c) + a)) + I*sqrt(2)*weierstrassPInverse(-4, 0, cos(b
*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{1}{x\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/sec(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(1/(x*sec(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\sec(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
```

```
[Out] integrate(1/(x*sec(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F]

$$\int \frac{1}{x\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{x\sec\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(1/(x*sec(b*log(c*x^n) + a)^(3/2)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\sec^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{x\,{\left(\frac{1}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)}^{3/2}}\,dx$$

```
[In] int(1/(x*(1/cos(a + b*log(c*x^n)))^(3/2)),x)
[Out] int(1/(x*(1/cos(a + b*log(c*x^n)))^(3/2)), x)
```

3.276 $\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))} dx$

Optimal result 2548
Rubi [A] (verified) 2548
Mathematica [B] (warning: unable to verify) 2549
Maple [F] 2551
Fricas [F(-2)] 2551
Sympy [F(-1)] 2551
Maxima [F] 2551
Giac [F] 2552
Mupad [F(-1)] 2552

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))} dx = \frac{2x \text{Hypergeometric2F1}\left(-\frac{5}{2}, \frac{1}{4}\left(-5-\frac{2i}{bn}\right), -\frac{2i+bn}{4bn}, -e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*hypergeom([-5/2, -5/4-1/2*I/b/n],[1/4*(-2*I-b*n)/b/n],-exp(2*I*a)*(c*x^
n)^(2*I*b))/(2-5*I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)/sec(a+b*ln(c*x
^n))^(5/2)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4599, 4603, 371}

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))} dx = \frac{2x \text{Hypergeometric2F1}\left(-\frac{5}{2}, \frac{1}{4}\left(-5-\frac{2i}{bn}\right), -\frac{bn+2i}{4bn}, -e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*Hypergeometric2F1[-5/2, (-5 - (2*I)/(b*n))/4, -1/4*(2*I + b*n)/(b*n),
-(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 - (5*I)*b*n)*(1 + E^((2*I)*a)*(c*x^n
)^((2*I)*b))^(5/2)*Sec[a + b*Log[c*x^n]]^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sec^{\frac{5}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}\\
&= \frac{\left(x(cx^n)^{\frac{5ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{5ib}{2}+\frac{1}{n}}\left(1+e^{2ia}x^{2ib}\right)^{5/2}\,dx, x, cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)}\\
&= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{2i+bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)}
\end{aligned}$$

Mathematica [B] (warning: unable to verify)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 867 vs. 2(110) = 220.

Time = 7.96 (sec) , antiderivative size = 867, normalized size of antiderivative = 7.88

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{30b^3e^{2i(a+b(-n\log(x)+\log(cx^n)))}n^3x\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},-e^{2i(a+b(-n\log(x)+\log\ldots}\right.\right.}{(2-5ibn)(2i+bn)(-2i+3bn)(-2i+5bn)\left(-2i-bn+e^{2i(a+b(-n\log(x)+\log(cx^n)))}(\ldots\right.} + \sqrt{\sec(a+bn\log(x)+b(-n\log(x)+\log(cx^n)))}\left(-\frac{x\cos(bn\log(x))\left(12+55b^2n^2+12\cos(2(a+b(-n\log\ldots\right.}{4(-2i+5bn)(2i+5bn\ldots} + \frac{x\sin(bn\log(x))\left(-16bn-4bn\cos(2(a+b(-n\log(x)+\log(cx^n))))+12\sin(2(a+b(-n\log(x)+\log(c\ldots\right.}{4(-2i+5bn)(2i+5bn)\left(-2\cos(a+b(-n\log(x)+\log(cx^n)))+bn\sin(a+\ldots\right.} + \frac{x\sin(3bn\log(x))\left(5bn\cos(3(a+b(-n\log(x)+\log(cx^n))))-2\sin(3(a+b(-n\log(x)+\log(cx^n))))\right)}{2(-2i+5bn)(2i+5bn)} + \frac{x\cos(3bn\log(x))\left(2\cos(3(a+b(-n\log(x)+\log(cx^n))))+5bn\sin(3(a+b(-n\log(x)+\log(cx^n))))\right)}{2(-2i+5bn)(2i+5bn)}\right)$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (30*b^3*E^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*n^3*x*((2*I + b*n)*x^(
(2*I)*b*n)*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n), -(E
^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*I)*b*n))] + (-2*I + 3*b*n
)*Hypergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), -(E^((2
*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*I)*b*n))]))/((2 - (5*I)*b*n)*
(2*I + b*n)*(-2*I + 3*b*n)*(-2*I + 5*b*n)*(-2*I - b*n + E^((2*I)*(a + b*(-(
n*Log[x]) + Log[c*x^n])))*(-2*I + b*n))*Sqrt[1 + E^((2*I)*(a + b*(-(n*Log[x
]) + Log[c*x^n])))*x^((2*I)*b*n)]*Sqrt[(E^(I*(a + b*(-(n*Log[x]) + Log[c*x^
n])))*x^(I*b*n))/(2 + 2*E^((2*I)*(a + b*(-(n*Log[x]) + Log[c*x^n])))*x^((2*
I)*b*n))]) + Sqrt[Sec[a + b*n*Log[x] + b*(-(n*Log[x]) + Log[c*x^n])]]*(-1/4
*(x*Cos[b*n*Log[x]]*(12 + 55*b^2*n^2 + 12*Cos[2*(a + b*(-(n*Log[x]) + Log[c
*x^n]))] + 65*b^2*n^2*Cos[2*(a + b*(-(n*Log[x]) + Log[c*x^n]))] + 4*b*n*Sin
[2*(a + b*(-(n*Log[x]) + Log[c*x^n]))]))/((-2*I + 5*b*n)*(2*I + 5*b*n)*(-2*
Cos[a + b*(-(n*Log[x]) + Log[c*x^n])] + b*n*Sin[a + b*(-(n*Log[x]) + Log[c*
x^n])])) + (x*Sin[b*n*Log[x]]*(-16*b*n - 4*b*n*Cos[2*(a + b*(-(n*Log[x]) +
Log[c*x^n]))] + 12*Sin[2*(a + b*(-(n*Log[x]) + Log[c*x^n]))] + 65*b^2*n^2*S
in[2*(a + b*(-(n*Log[x]) + Log[c*x^n]))]))/(4*(-2*I + 5*b*n)*(2*I + 5*b*n)*
(-2*Cos[a + b*(-(n*Log[x]) + Log[c*x^n])] + b*n*Sin[a + b*(-(n*Log[x]) + Lo
g[c*x^n])])) + (x*Sin[3*b*n*Log[x]]*(5*b*n*Cos[3*(a + b*(-(n*Log[x]) + Log[
c*x^n]))] - 2*Sin[3*(a + b*(-(n*Log[x]) + Log[c*x^n]))]))/(2*(-2*I + 5*b*n)
*(2*I + 5*b*n)) + (x*Cos[3*b*n*Log[x]]*(2*Cos[3*(a + b*(-(n*Log[x]) + Log[c
*x^n]))] + 5*b*n*Sin[3*(a + b*(-(n*Log[x]) + Log[c*x^n]))]))/(2*(-2*I + 5*b
*n)*(2*I + 5*b*n)))
```

Maple [F]

$$\int \frac{1}{\sec (a+b\ln (c\,x^{n}))^{\frac{5}{2}}}dx$$

```
[In] int(1/sec(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(1/sec(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/sec(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sec(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
```

```
[Out] integrate(sec(b*log(c*x^n) + a)^(-5/2), x)
```

Giac [F]

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\sec(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/sec(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^(-5/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\left(\frac{1}{\cos(a+b\ln(c\,x^n))}\right)^{5/2}}\,dx$$

```
[In] int(1/(1/cos(a + b*log(c*x^n)))^(5/2),x)
[Out] int(1/(1/cos(a + b*log(c*x^n)))^(5/2), x)
```

3.277 $\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2553
Rubi [A] (verified) 2553
Mathematica [A] (verified) 2555
Maple [B] (verified) 2555
Fricas [C] (verification not implemented) 2556
Sympy [F(-1)] 2556
Maxima [F] 2556
Giac [F] 2557
Mupad [F(-1)] 2557

Optimal result

Integrand size = 19, antiderivative size = 93

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{6\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{5bn} + \frac{2\sin(a+b\log(cx^n))}{5bn\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2/5*sin(a+b*ln(c*x^n))/b/n/sec(a+b*ln(c*x^n))^(3/2)+6/5*(cos(1/2*a+1/2*b*ln
(c*x^n))^2)^(1/2)/cos(1/2*a+1/2*b*ln(c*x^n))*EllipticE(sin(1/2*a+1/2*b*ln(c
*x^n)),2^(1/2))*cos(a+b*ln(c*x^n))^(1/2)*sec(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 93, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {3854, 3856, 2719}

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{2\sin(a+b\log(cx^n))}{5bn\sec^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{6\sqrt{\sec(a+b\log(cx^n))}\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)}{5bn}$$

```
[In] Int[1/(x*Sec[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (6*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticE[(a + b*Log[c*x^n])/2, 2]*Sqrt[Sec[
a + b*Log[c*x^n]]])/(5*b*n) + (2*Sin[a + b*Log[c*x^n]])/(5*b*n*Sec[a + b*Lo
g[c*x^n]]^(3/2))
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3854

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Csc[c + d*x])^(n + 1)/(b*d*n)), x] + Dist[(n + 1)/(b^2*n), Int[(b*Csc[c +
 d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] && IntegerQ[2*n
]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\text{integral} = \frac{\text{Subst}\left(\int \frac{1}{\sec^{\frac{5}{2}}(a+bx)}\,dx, x, \log(cx^n)\right)}{n}$$

$$= \frac{2\sin(a+b\log(cx^n))}{5bn\sec^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{3\text{Subst}\left(\int \frac{1}{\sqrt{\sec(a+bx)}}\,dx, x, \log(cx^n)\right)}{5n}$$

$$= \frac{2\sin(a+b\log(cx^n))}{5bn\sec^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{\left(3\sqrt{\cos(a+b\log(cx^n))}\sqrt{\sec(a+b\log(cx^n))}\right)\text{Subst}\left(\int \sqrt{\cos(a+bx)}\,dx, x, \log(cx^n)\right)}{5n}$$

$$= \frac{6\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)\sqrt{\sec(a+b\log(cx^n))}}{5bn} + \frac{2\sin(a+b\log(cx^n))}{5bn\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

Mathematica [A] (verified)

Time = 0.18 (sec) , antiderivative size = 83, normalized size of antiderivative = 0.89

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \frac{\sqrt{\sec(a+b\log(cx^n))}\left(12\sqrt{\cos(a+b\log(cx^n))}E\left(\frac{1}{2}(a+b\log(cx^n))\middle|2\right)+\sin(a+b\log(cx^n))+\sin(3(a\right.}{10bn}$$

```
[In] Integrate[1/(x*Sec[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (Sqrt[Sec[a + b*Log[c*x^n]]]*(12*Sqrt[Cos[a + b*Log[c*x^n]]]*EllipticE[(a +
 b*Log[c*x^n])/2, 2] + Sin[a + b*Log[c*x^n]] + Sin[3*(a + b*Log[c*x^n])]))/
(10*b*n)
```

Maple [B] (verified)

Leaf count of result is larger than twice the leaf count of optimal. 279 vs. 2(119) = 238.

Time = 3.02 (sec) , antiderivative size = 280, normalized size of antiderivative = 3.01

method	result
derivativedivides	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\left(-8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{6}+8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right.\right.}{5n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{4}}}$
default	$-\frac{2\sqrt{\left(2\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}-1\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{2}}\left(-8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{6}+8\cos\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right.\right.}{5n\sqrt{-2\sin\left(\frac{a}{2}+\frac{b\ln(c\,x^{n})}{2}\right)^{4}}}$

```
[In] int(1/x/sec(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)
```

```
[Out] -2/5/n*((2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)*sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1
/2)*(-8*cos(1/2*a+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^6+8*cos(1/2*a
+1/2*b*ln(c*x^n))*sin(1/2*a+1/2*b*ln(c*x^n))^4-2*sin(1/2*a+1/2*b*ln(c*x^n))
^2*cos(1/2*a+1/2*b*ln(c*x^n))-3*(sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*(-1+2*
sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2)*EllipticE(cos(1/2*a+1/2*b*ln(c*x^n)),2^
(1/2)))/(-2*sin(1/2*a+1/2*b*ln(c*x^n))^4+sin(1/2*a+1/2*b*ln(c*x^n))^2)^(1/2
)/sin(1/2*a+1/2*b*ln(c*x^n))/(2*cos(1/2*a+1/2*b*ln(c*x^n))^2-1)^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 113, normalized size of antiderivative = 1.22

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{2\cos(bn\log(x)+b\log(c)+a)^{\frac{3}{2}}\sin(bn\log(x)+b\log(c)+a)+3i\sqrt{2}\text{weierstrassZeta}(-4,0,\text{weierstrassP}$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] 1/5*(2*cos(b*n*log(x) + b*log(c) + a)^(3/2)*sin(b*n*log(x) + b*log(c) + a)
+ 3*I*sqrt(2)*weierstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log
(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) - 3*I*sqrt(2)*weie
rstrassZeta(-4, 0, weierstrassPInverse(-4, 0, cos(b*n*log(x) + b*log(c) + a
) - I*sin(b*n*log(x) + b*log(c) + a))))/(b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/sec(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{x\sec^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\sec(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
```

```
[Out] integrate(1/(x*sec(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F]

$$\int \frac{1}{x\sec^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{x\sec\left(b\log\left(cx^{n}\right)+a\right)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/sec(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] integrate(1/(x*sec(b*log(c*x^n) + a)^(5/2)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\sec^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{x\,{\left(\frac{1}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)}^{5/2}}\,dx$$

```
[In] int(1/(x*(1/cos(a + b*log(c*x^n)))^(5/2)),x)
[Out] int(1/(x*(1/cos(a + b*log(c*x^n)))^(5/2)), x)
```

3.278 $\int x^m \sec^3(a+b\log(cx^n))\,dx$

Optimal result 2558
Rubi [A] (verified) 2558
Mathematica [A] (verified) 2559
Maple [F] 2560
Fricas [F] 2560
Sympy [F] 2560
Maxima [F] 2560
Giac [F] 2565
Mupad [F(-1)] 2565

Optimal result

Integrand size = 17, antiderivative size = 102

$$\int x^m \sec^3(a+b\log(cx^n))\,dx = \frac{8e^{3ia}x^{1+m}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,-\frac{i(1+m)-3bn}{2bn},-\frac{i(1+m)-5bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+m+3ibn}$$

```
[Out] 8*exp(3*I*a)*x^(1+m)*(c*x^n)^(3*I*b)*hypergeom([3, 1/2*(-I*(1+m)+3*b*n)/b/n
],[1/2*(-I*(1+m)+5*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(1+m+3*I*b*n)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 102, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int x^m \sec^3(a+b\log(cx^n))\,dx = \frac{8e^{3ia}x^{m+1}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,-\frac{i(m+1)-3bn}{2bn},-\frac{i(m+1)-5bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{3ibn+m+1}$$

```
[In] Int[x^m*Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (8*E^((3*I)*a)*x^(1 + m)*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, -1/2*(I*(1
 + m) - 3*b*n)/(b*n), -1/2*(I*(1 + m) - 5*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^
((2*I)*b))])/(1 + m + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec^3(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(8e^{3ia}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{1+m}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^3}\,dx,x,cx^n\right)}{n}$$

$$= \frac{8e^{3ia}x^{1+m}(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,-\frac{i(1+m)-3bn}{2bn},-\frac{i(1+m)-5bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+m+3ibn}$$

Mathematica [A] (verified)

Time = 5.91 (sec) , antiderivative size = 139, normalized size of antiderivative = 1.36

$$\int x^m\sec^3(a+b\log(cx^n))\,dx$$

$$= \frac{x^{1+m}\left(4e^{ia}(1+m-ibn)(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{-i-im+bn}{2bn},-\frac{i(1+m+3ibn)}{2bn},-e^{2i(a+b\log(cx^n))}\right)-2\sec\right.}{4b^2n^2}$$

```
[In] Integrate[x^m*Sec[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (x^(1 + m)*(4*E^(I*a)*(1 + m - I*b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (-
I - I*m + b*n)/(2*b*n), ((-1/2*I)*(1 + m + (3*I)*b*n))/(b*n), -E^((2*I)*(a
+ b*Log[c*x^n]))] - 2*Sec[a + b*Log[c*x^n]]*(1 + m - b*n*Tan[a + b*Log[c*x^
n]])))/(4*b^2*n^2)
```

Maple [F]

$$\int x^{m}\sec\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}dx$$

```
[In] int(x^m*sec(a+b*ln(c*x^n))^3,x)
[Out] int(x^m*sec(a+b*ln(c*x^n))^3,x)
```

Fricas [F]

$$\int x^{m}\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x^{m}\sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^3,x, algorithm="fricas")
[Out] integral(x^m*sec(b*log(c*x^n) + a)^3, x)
```

Sympy [F]

$$\int x^{m}\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x^{m}\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x**m*sec(a+b*ln(c*x**n))**3,x)
[Out] Integral(x**m*sec(a + b*log(c*x**n))**3, x)
```

Maxima [F]

$$\int x^{m}\sec^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x^{m}\sec\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^3,x, algorithm="maxima")
[Out] -((b*n*sin(b*log(c)) + m*cos(b*log(c)) + cos(b*log(c)))*x*x^m*cos(b*log(x^n
) + a) + (b*n*cos(b*log(c)) - m*sin(b*log(c)) - sin(b*log(c)))*x*x^m*sin(b*
log(x^n) + a) + (((cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*
b*log(c)))*m + (b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3
*b*log(c)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*l
og(c)))*x*x^m*cos(3*b*log(x^n) + 3*a) + ((cos(4*b*log(c))*cos(b*log(c)) + s
in(4*b*log(c))*sin(b*log(c)))*m - (b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(
4*b*log(c))*sin(b*log(c)))*n + cos(4*b*log(c))*cos(b*log(c)) + sin(4*b*log(
c))*sin(b*log(c)))*x*x^m*cos(b*log(x^n) + a) + ((cos(3*b*log(c))*sin(4*b*lo
```

```
g(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*m - (b*cos(4*b*log(c))*cos(3*b*log
(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n + cos(3*b*log(c))*sin(4*b*log(c
)) - cos(4*b*log(c))*sin(3*b*log(c)))*x*x^m*sin(3*b*log(x^n) + 3*a) + ((cos
(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*m + (b*cos(4*b*
log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*
sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*x^m*sin(b*log(x^n) + a))
*cos(4*b*log(x^n) + 4*a) + (2*((cos(3*b*log(c))*cos(2*b*log(c)) + sin(3*b*l
og(c))*sin(2*b*log(c)))*m - (b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*
log(c))*sin(2*b*log(c)))*n + cos(3*b*log(c))*cos(2*b*log(c)) + sin(3*b*log(
c))*sin(2*b*log(c)))*x*x^m*cos(2*b*log(x^n) + 2*a) + 2*((cos(2*b*log(c))*si
n(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*m + (b*cos(3*b*log(c))*cos
(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(3
*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*x^m*sin(2*b*log(x^n) + 2*a)
 - (b*n*sin(3*b*log(c)) - m*cos(3*b*log(c)) - cos(3*b*log(c)))*x*x^m)*cos(3
*b*log(x^n) + 3*a) + 2*(((cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*s
in(b*log(c)))*m - (b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(
b*log(c)))*n + cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log(c)
))*x*x^m*cos(b*log(x^n) + a) + ((cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*lo
g(c))*sin(b*log(c)))*m + (b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c
))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b
*log(c)))*x*x^m*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) - (b^4*n^4*cos
(b*log(c)) + (b^2*m^2*cos(b*log(c)) + 2*b^2*m*cos(b*log(c)) + b^2*cos(b*log
(c)))*n^2 + ((b^4*cos(4*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4
*b*log(c))^2)*n^4 + (b^2*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c)
)*sin(4*b*log(c))^2 + (b^2*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(
c))*sin(4*b*log(c))^2)*m^2 + 2*(b^2*cos(4*b*log(c))^2*cos(b*log(c)) + b^2*c
os(b*log(c))*sin(4*b*log(c))^2)*m)*n^2)*cos(4*b*log(x^n) + 4*a)^2 + 4*((b^4
*cos(2*b*log(c))^2*cos(b*log(c)) + b^4*cos(b*log(c))*sin(2*b*log(c))^2)*n^4
 + (b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c))
^2 + (b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c
))^2)*m^2 + 2*(b^2*cos(2*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(
2*b*log(c))^2)*m)*n^2)*cos(2*b*log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))^2*
cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))^2)*n^4 + (b^2*cos(4*b*log
(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2 + (b^2*cos(4*b*l
og(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*m^2 + 2*(b^2*
cos(4*b*log(c))^2*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))^2)*m)*n
^2)*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*cos(b*log(c)) + b
^4*cos(b*log(c))*sin(2*b*log(c))^2)*n^4 + (b^2*cos(2*b*log(c))^2*cos(b*log(
c)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2 + (b^2*cos(2*b*log(c))^2*cos(b*lo
g(c)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*m^2 + 2*(b^2*cos(2*b*log(c))^2
*cos(b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c))^2)*m)*n^2)*sin(2*b*log(x
^n) + 2*a)^2 + 2*(b^4*n^4*cos(4*b*log(c))*cos(b*log(c)) + (b^2*m^2*cos(4*b*
log(c))*cos(b*log(c)) + 2*b^2*m*cos(4*b*log(c))*cos(b*log(c)) + b^2*cos(4*b
*log(c))*cos(b*log(c)))*n^2 + 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b
*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*co
```

s(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)) + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*m)*n^2)*cos(2*b*log(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)) + (b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*m^2 + 2*(b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*m)*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 4*(b^4*n^4*cos(2*b*log(c))*cos(b*log(c)) + (b^2*m^2*cos(2*b*log(c))*cos(b*log(c)) + 2*b^2*m*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(2*b*log(c))*cos(b*log(c)))*n^2)*cos(2*b*log(x^n) + 2*a) - 2*(b^4*n^4*cos(b*log(c))*sin(4*b*log(c)) + (b^2*m^2*cos(b*log(c))*sin(4*b*log(c)) + 2*b^2*m*cos(b*log(c))*sin(4*b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c)))*n^2 + 2*((b^4*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)) + (b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*m^2 + 2*(b^2*cos(2*b*log(c))*cos(b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c))*cos(b*log(c))*sin(2*b*log(c)))*m)*n^2)*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^4*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)) + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*cos(b*log(c)) + b^2*cos(b*log(c))*sin(4*b*log(c))*sin(2*b*log(c)))*m)*n^2)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*cos(b*log(c))*sin(2*b*log(c)) + (b^2*m^2*cos(b*log(c))*sin(2*b*log(c)) + 2*b^2*m*cos(b*log(c))*sin(2*b*log(c)) + b^2*cos(b*log(c))*sin(2*b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*integrate(((x^m*cos(2*b*log(c))*cos(b*log(x^n) + a) + x^m*sin(2*b*log(c))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a) + x^m*cos(b*log(x^n) + a) - (x^m*cos(b*log(x^n) + a)*sin(2*b*log(c)) - x^m*cos(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) - (b^4*n^4*sin(b*log(c)) + (b^2*m^2*sin(b*log(c)) + 2*b^2*m*sin(b*log(c)) + b^2*sin(b*log(c)))*n^2 + ((b^4*cos(4*b*log(c))^2*sin(b*log(c)) + b^4*sin(4*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)) + (b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*m)*n^2)*cos(4*b*log(x^n) + 4*a)^2 + 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)

```
) + b^4*sin(2*b*log(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b
*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)) + (b^2*cos(2*b*log(c))^2*sin
(b*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)))*m^2 + 2*(b^2*cos(2*b*log(
c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*sin(b*log(c)))*m)*n^2)*cos(2*b*
log(x^n) + 2*a)^2 + ((b^4*cos(4*b*log(c))^2*sin(b*log(c)) + b^4*sin(4*b*log
(c))^2*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*sin(
4*b*log(c))^2*sin(b*log(c)) + (b^2*cos(4*b*log(c))^2*sin(b*log(c)) + b^2*si
n(4*b*log(c))^2*sin(b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))^2*sin(b*log(c))
 + b^2*sin(4*b*log(c))^2*sin(b*log(c)))*m)*n^2)*sin(4*b*log(x^n) + 4*a)^2 +
 4*((b^4*cos(2*b*log(c))^2*sin(b*log(c)) + b^4*sin(2*b*log(c))^2*sin(b*log(
c)))*n^4 + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*sin
(b*log(c)) + (b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*log(c))^2*s
in(b*log(c)))*m^2 + 2*(b^2*cos(2*b*log(c))^2*sin(b*log(c)) + b^2*sin(2*b*lo
g(c))^2*sin(b*log(c)))*m)*n^2)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^4*n^4*cos(4
*b*log(c))*sin(b*log(c)) + (b^2*m^2*cos(4*b*log(c))*sin(b*log(c)) + 2*b^2*m
*cos(4*b*log(c))*sin(b*log(c)) + b^2*cos(4*b*log(c))*sin(b*log(c)))*n^2 + 2
*((b^4*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*
sin(2*b*log(c))*sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*s
in(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)) + (b^2*cos
(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*lo
g(c))*sin(b*log(c)))*m^2 + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log
(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*m)*n^2)*cos(2*b*l
og(x^n) + 2*a) + 2*((b^4*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^
4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4 + (b^2*cos(2*b*log(c))
*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*
log(c)) + (b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*
log(c))*sin(2*b*log(c))*sin(b*log(c)))*m^2 + 2*(b^2*cos(2*b*log(c))*sin(4*b
*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))
*m)*n^2)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 4*(b^4*n^4*cos(
2*b*log(c))*sin(b*log(c)) + (b^2*m^2*cos(2*b*log(c))*sin(b*log(c)) + 2*b^2*
m*cos(2*b*log(c))*sin(b*log(c)) + b^2*cos(2*b*log(c))*sin(b*log(c)))*n^2)*c
os(2*b*log(x^n) + 2*a) - 2*(b^4*n^4*sin(4*b*log(c))*sin(b*log(c)) + (b^2*m^
2*sin(4*b*log(c))*sin(b*log(c)) + 2*b^2*m*sin(4*b*log(c))*sin(b*log(c)) + b
^2*sin(4*b*log(c))*sin(b*log(c)))*n^2 + 2*((b^4*cos(2*b*log(c))*sin(4*b*log
(c))*sin(b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*n^4
 + (b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))
*sin(2*b*log(c))*sin(b*log(c)) + (b^2*cos(2*b*log(c))*sin(4*b*log(c))*sin(b
*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*m^2 + 2*(b^2*
cos(2*b*log(c))*sin(4*b*log(c))*sin(b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b
*log(c))*sin(b*log(c)))*m)*n^2)*cos(2*b*log(x^n) + 2*a) - 2*((b^4*cos(4*b*l
og(c))*cos(2*b*log(c))*sin(b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c))*
sin(b*log(c)))*n^4 + (b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b
^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(c)) + (b^2*cos(4*b*log(c))*cos
(2*b*log(c))*sin(b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c))*sin(b*log(
c)))*m^2 + 2*(b^2*cos(4*b*log(c))*cos(2*b*log(c))*sin(b*log(c)) + b^2*sin(4
```

```
*b*log(c))*sin(2*b*log(c))*sin(b*log(c)))*m)*n^2)*sin(2*b*log(x^n) + 2*a))*
sin(4*b*log(x^n) + 4*a) - 4*(b^4*n^4*sin(2*b*log(c))*sin(b*log(c)) + (b^2*m
^2*sin(2*b*log(c))*sin(b*log(c)) + 2*b^2*m*sin(2*b*log(c))*sin(b*log(c)) +
b^2*sin(2*b*log(c))*sin(b*log(c)))*n^2)*sin(2*b*log(x^n) + 2*a))*integrate(
((x^m*cos(b*log(x^n) + a)*sin(2*b*log(c)) - x^m*cos(2*b*log(c))*sin(b*log(x
^n) + a))*cos(2*b*log(x^n) + 2*a) + (x^m*cos(2*b*log(c))*cos(b*log(x^n) + a
) + x^m*sin(2*b*log(c))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) - x^m*
sin(b*log(x^n) + a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2
*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2*cos(2*b*log(c))^2 +
 b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 + (b^2*cos(2*b*log(c)
)^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 + b^2*n^2), x) -
 (((cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*m -
(b*cos(4*b*log(c))*cos(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n +
 cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*x*x^m*c
os(3*b*log(x^n) + 3*a) + ((cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*
sin(b*log(c)))*m + (b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin
(b*log(c)))*n + cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c
)))*x*x^m*cos(b*log(x^n) + a) - ((cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b
*log(c))*sin(3*b*log(c)))*m + (b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*
b*log(c))*sin(3*b*log(c)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*lo
g(c))*sin(3*b*log(c)))*x*x^m*sin(3*b*log(x^n) + 3*a) - ((cos(4*b*log(c))*co
s(b*log(c)) + sin(4*b*log(c))*sin(b*log(c)))*m - (b*cos(b*log(c))*sin(4*b*l
og(c)) - b*cos(4*b*log(c))*sin(b*log(c)))*n + cos(4*b*log(c))*cos(b*log(c))
 + sin(4*b*log(c))*sin(b*log(c)))*x*x^m*sin(b*log(x^n) + a))*sin(4*b*log(x^
n) + 4*a) - (2*((cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*
log(c)))*m + (b*cos(3*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b
*log(c)))*n + cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log
(c)))*x*x^m*cos(2*b*log(x^n) + 2*a) - 2*((cos(3*b*log(c))*cos(2*b*log(c)) +
 sin(3*b*log(c))*sin(2*b*log(c)))*m - (b*cos(2*b*log(c))*sin(3*b*log(c)) -
b*cos(3*b*log(c))*sin(2*b*log(c)))*n + cos(3*b*log(c))*cos(2*b*log(c)) + si
n(3*b*log(c))*sin(2*b*log(c)))*x*x^m*sin(2*b*log(x^n) + 2*a) + (b*n*cos(3*b
*log(c)) + m*sin(3*b*log(c)) + sin(3*b*log(c)))*x*x^m)*sin(3*b*log(x^n) + 3
*a) - 2*(((cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*m
 + (b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n +
cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*x*x^m*cos(b*
log(x^n) + a) - ((cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log
(c)))*m - (b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)
))*n + cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*log(c))*sin(b*log(c)))*x*x^m
*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a))/(4*b^2*n^2*cos(2*b*log(c))*c
os(2*b*log(x^n) + 2*a) - 4*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a)
+ (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*cos(4*b*log(x^n) + 4*
a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^
n) + 2*a)^2 + (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*sin(4*b*l
og(x^n) + 4*a)^2 + 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*si
n(2*b*log(x^n) + 2*a)^2 + b^2*n^2 + 2*(b^2*n^2*cos(4*b*log(c)) + 2*(b^2*cos
```

```
(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*cos
(2*b*log(x^n) + 2*a) + 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b
*log(c))*sin(2*b*log(c)))*n^2*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4
*a) - 2*(b^2*n^2*sin(4*b*log(c)) + 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) -
 b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*cos(2*b*log(x^n) + 2*a) - 2*(b^2*
cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2*
sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int x^m \sec^3(a+b\log(cx^n))\,dx=\int x^m \sec(b\log(cx^n)+a)^3\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^3,x, algorithm="giac")
[Out] integrate(x^m*sec(b*log(c*x^n) + a)^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sec^3(a+b\log(cx^n))\,dx=\int \frac{x^m}{\cos(a+b\,\ln(c\,x^n))^3}\,dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n))^3,x)
[Out] int(x^m/cos(a + b*log(c*x^n))^3, x)
```

3.279 $\int x^m \sec^2(a+b\log(cx^n))\,dx$

Optimal result 2566
Rubi [A] (verified) 2566
Mathematica [A] (verified) 2567
Maple [F] 2568
Fricas [F] 2568
Sympy [F] 2568
Maxima [F] 2568
Giac [F] 2569
Mupad [F(-1)] 2569

Optimal result

Integrand size = 17, antiderivative size = 102

$$\int x^m \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x^{1+m}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,-\frac{i(1+m)-2bn}{2bn},-\frac{i(1+m)-4bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+m+2ibn}$$

```
[Out] 4*exp(2*I*a)*x^(1+m)*(c*x^n)^(2*I*b)*hypergeom([2, 1/2*(-I*(1+m)+2*b*n)/b/n
],[1/2*(-I*(1+m)+4*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(1+m+2*I*b*n)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 102, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4605, 4601, 371}

$$\int x^m \sec^2(a+b\log(cx^n))\,dx = \frac{4e^{2ia}x^{m+1}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,-\frac{i(m+1)-2bn}{2bn},-\frac{i(m+1)-4bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{2ibn+m+1}$$

```
[In] Int[x^m*Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (4*E^((2*I)*a)*x^(1 + m)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, -1/2*(I*(1
+ m) - 2*b*n)/(b*n), -1/2*(I*(1 + m) - 4*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^
((2*I)*b))])/(1 + m + (2*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec^2(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(4e^{2ia}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+2ib+\frac{1+m}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^2}\,dx,x,cx^n\right)}{n}$$

$$= \frac{4e^{2ia}x^{1+m}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,-\frac{i(1+m)-2bn}{2bn},-\frac{i(1+m)-4bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+m+2ibn}$$

Mathematica [A] (verified)

Time = 15.27 (sec) , antiderivative size = 198, normalized size of antiderivative = 1.94

$$\int x^m\sec^2(a+b\log(cx^n))\,dx =$$

$$-\frac{ix^{1+m}\left((1+m+2ibn)\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bn},1-\frac{i(1+m)}{2bn},-e^{2i(a+b\log(cx^n))}\right)-e^{2ia}(1+m)(cx}{bn(}$$

```
[In] Integrate[x^m*Sec[a + b*Log[c*x^n]]^2,x]
```

```
[Out] ((-I)*x^(1 + m)*((1 + m + (2*I)*b*n)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m)
)/(b*n), 1 - ((I/2)*(1 + m))/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))] - E^((2*
I)*a)*(1 + m)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*
I)*b*n))/(b*n), ((-1/2*I)*(1 + m + (4*I)*b*n))/(b*n), -E^((2*I)*(a + b*Log[
c*x^n]))] + I*(1 + m + (2*I)*b*n)*Tan[a + b*Log[c*x^n]]))/(b*n*(1 + m + (2*
I)*b*n))
```

Maple [F]

$$\int x^m \sec\left(a+b\ln\left(c\,x^n\right)\right)^2 dx$$

```
[In] int(x^m*sec(a+b*ln(c*x^n))^2,x)
[Out] int(x^m*sec(a+b*ln(c*x^n))^2,x)
```

Fricas [F]

$$\int x^m \sec^2\left(a+b\log\left(cx^n\right)\right)\,dx = \int x^m \sec\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] integral(x^m*sec(b*log(c*x^n) + a)^2, x)
```

Sympy [F]

$$\int x^m \sec^2\left(a+b\log\left(cx^n\right)\right)\,dx = \int x^m \sec^2\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(x**m*sec(a+b*ln(c*x**n))**2,x)
[Out] Integral(x**m*sec(a + b*log(c*x**n))**2, x)
```

Maxima [F]

$$\int x^m \sec^2\left(a+b\log\left(cx^n\right)\right)\,dx = \int x^m \sec\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^2,x, algorithm="maxima")
[Out] 2*(x*x^m*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x*x^m*cos(2*b*log(c))*si
n(2*b*log(x^n) + 2*a) - ((b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2 + (
b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*m)*n^2*cos(2*b*log(x^n) + 2*
a)^2 + (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2 + (b^2*cos(2*b*log(c)
)^2 + b^2*sin(2*b*log(c))^2)*m)*n^2*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^2*m*co
s(2*b*log(c)) + b^2*cos(2*b*log(c)))*n^2*cos(2*b*log(x^n) + 2*a) - 2*(b^2*m
*sin(2*b*log(c)) + b^2*sin(2*b*log(c)))*n^2*sin(2*b*log(x^n) + 2*a) + (b^2*
m + b^2)*n^2)*integrate((x^m*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + x^m*
cos(2*b*log(c))*sin(2*b*log(x^n) + 2*a))/(2*b^2*n^2*cos(2*b*log(c))*cos(2*b
```

```
*log(x^n) + 2*a) - 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b^2
*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 +
 (b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a
)^2 + b^2*n^2), x))/(2*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + (b*cos
(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*s
in(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + (b*cos(2*b*log(c))^2 + b*sin(2*b*l
og(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 + b*n)
```

Giac [F]

$$\int x^m \sec^2(a+b\log(cx^n))\,dx=\int x^m \sec(b\log(cx^n)+a)^2\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^2,x, algorithm="giac")
[Out] integrate(x^m*sec(b*log(c*x^n) + a)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sec^2(a+b\log(cx^n))\,dx=\int \frac{x^m}{\cos\left(a+b\,\ln\left(c\,x^n\right)\right)^2}\,dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n))^2,x)
[Out] int(x^m/cos(a + b*log(c*x^n))^2, x)
```

3.280 $\int x^m \sec(a+b\log(cx^n))\,dx$

Optimal result 2570
Rubi [A] (verified) 2570
Mathematica [A] (verified) 2571
Maple [F] 2572
Fricas [F] 2572
Sympy [F] 2572
Maxima [F] 2572
Giac [F] 2573
Mupad [F(-1)] 2573

Optimal result

Integrand size = 15, antiderivative size = 103

$$\int x^m \sec(a+b\log(cx^n))\,dx = \frac{2e^{ia}x^{1+m}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,-\frac{i+im-bn}{2bn},-\frac{i(1+m)-3bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{1+m+ibn}$$

```
[Out] 2*exp(I*a)*x^(1+m)*(c*x^n)^(I*b)*hypergeom([1, 1/2*(-I-I*m+b*n)/b/n],[1/2*(
-I*(1+m)+3*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(1+m+I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 99, normalized size of antiderivative = 0.96, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4605, 4601, 371}

$$\int x^m \sec(a+b\log(cx^n))\,dx = \frac{2e^{ia}x^{m+1}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i(m+1)}{bn}\right),-\frac{i(m+1)-3bn}{2bn},-e^{2ia}(cx^n)^{2ib}\right)}{ibn+m+1}$$

```
[In] Int[x^m*Sec[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x^(1 + m)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - (I*(1 + m))/(b
*n))/2, -1/2*(I*(1 + m) - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/
(1 + m + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4601

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[2^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b
*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(2e^{ia}x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{1+m}{n}}}{1+e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{n}$$

$$= \frac{2e^{ia}x^{1+m}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1-\frac{i(1+m)}{bn}\right), -\frac{i(1+m)-3bn}{2bn}, -e^{2ia}(cx^n)^{2ib}\right)}{1+m+ibn}$$

Mathematica [A] (verified)

Time = 1.38 (sec) , antiderivative size = 99, normalized size of antiderivative = 0.96

$$\int x^m \sec\left(a+b\log\left(cx^n\right)\right)\,dx = \frac{2e^{ia}x^{1+m}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{-i-im+bn}{2bn}, -\frac{i(1+m+3ibn)}{2bn}, -e^{2i(a+b\log(cx^n))}\right)}{1+m+ibn}$$

```
[In] Integrate[x^m*Sec[a + b*Log[c*x^n]],x]
[Out] (2*E^(I*a)*x^(1 + m)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (-I - I*m + b*n)/(2
*b*n), ((-1/2*I)*(1 + m + (3*I)*b*n))/(b*n), -E^((2*I)*(a + b*Log[c*x^n]))]
)/(1 + m + I*b*n)
```

Maple [F]

$$\int x^m \sec(a + b\ln(c\,x^n))\,dx$$

```
[In] int(x^m*sec(a+b*ln(c*x^n)),x)
[Out] int(x^m*sec(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int x^m \sec(a + b\log(cx^n))\ dx = \int x^m \sec(b\log(cx^n) + a)\ dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(x^m*sec(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int x^m \sec(a + b\log(cx^n))\ dx = \int x^m \sec(a + b\log(cx^n))\,dx$$

```
[In] integrate(x**m*sec(a+b*ln(c*x**n)),x)
[Out] Integral(x**m*sec(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int x^m \sec(a + b\log(cx^n))\ dx = \int x^m \sec(b\log(cx^n) + a)\ dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(x^m*sec(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int x^m \sec(a + b\log(cx^n))\, dx = \int x^m \sec(b\log(cx^n) + a)\, dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(x^m*sec(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sec(a + b\log(cx^n))\, dx = \int \frac{x^m}{\cos(a + b\ln(c\,x^n))}\, dx$$

```
[In] int(x^m/cos(a + b*log(c*x^n)),x)
[Out] int(x^m/cos(a + b*log(c*x^n)), x)
```

3.281 $\int x^m \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx$

Optimal result 2574
Rubi [A] (verified) 2574
Mathematica [A] (verified) 2575
Maple [F] 2576
Fricas [F(-2)] 2576
Sympy [F(-1)] 2576
Maxima [F] 2577
Giac [F(-1)] 2577
Mupad [F(-1)] 2577

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},-\frac{2i+2im-5bn}{4bn},-\frac{2i+2im-9bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{5}{2}}(a+b\log$$

$$2+2m+5ibn$$

```
[Out] 2*x^(1+m)*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*hypergeom([5/2, 1/4*(-2*I-2*
I*m+5*b*n)/b/n],[1/4*(-2*I-2*I*m+9*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*s
ec(a+b*ln(c*x^n))^(5/2)/(2+2*m+5*I*b*n)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4605, 4603, 371}

$$\int x^m \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{m+1}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(m+1)}{bn}\right),-\frac{2im-9bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{5}{2}}(a+$$

$$5ibn+2m+2$$

```
[In] Int[x^m*Sec[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Hypergeometric2F1[5/
2, (5 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - 9*b*n)/(b*n), -(E^(
(2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[a + b*Log[c*x^n]]^(5/2))/(2 + 2*m + (5*I)*
b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec^{\frac{5}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{5ib}{2}-\frac{1+m}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\sec^{\frac{5}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ib}{2}+\frac{1+m}{n}}}{(1+e^{2ia}x^{2ib})^{5/2}}\,dx,x,cx^n\right.}{n}$$

$$= \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-9bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\text{s}}{2+2m+5ibn}$$

Mathematica [A] (verified)

Time = 1.73 (sec) , antiderivative size = 182, normalized size of antiderivative = 1.40

$$\int x^m\sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx$$
$$= \frac{2x^{1+m}\sqrt{\sec(a+b\log(cx^n))}\Big((4+8m+4m^2+b^2n^2)\left(1+e^{2ia}(cx^n)^{2ib}\right)\text{Hypergeometric2F1}\left(1,-\frac{2i+2im-}{4bn}\right.}{3b^2n^2(2+2m+ib}$$

```
[In] Integrate[x^m*Sec[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*Sqrt[Sec[a + b*Log[c*x^n]]]*((4 + 8*m + 4*m^2 + b^2*n^2)*(1 +
E^((2*I)*a)*(c*x^n)^((2*I)*b))*Hypergeometric2F1[1, -1/4*(2*I + (2*I)*m - 3
*b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n), -E^((2*I)*(a + b*Log[c*x^n
]))] - (2 + 2*m + I*b*n)*(2 + 2*m - b*n*Tan[a + b*Log[c*x^n]])))/(3*b^2*n^2
*(2 + 2*m + I*b*n))
```

Maple [F]

$$\int x^{m} \sec \left(a +b \ln \left(c \,x^{n}\right)\right)^{\frac{5}{2}}d x$$

```
[In] int(x^m*sec(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(x^m*sec(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(x**m*sec(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int x^m \sec^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \int x^m \sec(b\log(cx^n) + a)^{\frac{5}{2}}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(x^m*sec(b*log(c*x^n) + a)^(5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \int x^m \left(\frac{1}{\cos(a + b\ln(c\,x^n))}\right)^{5/2} dx$$

```
[In] int(x^m*(1/cos(a + b*log(c*x^n)))^(5/2),x)
[Out] int(x^m*(1/cos(a + b*log(c*x^n)))^(5/2), x)
```

3.282 $\int x^m \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result 2578
Rubi [A] (verified) 2578
Mathematica [B] (verified) 2579
Maple [F] 2580
Fricas [F(-2)] 2580
Sympy [F(-1)] 2580
Maxima [F] 2581
Giac [F(-1)] 2581
Mupad [F(-1)] 2581

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-7bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{3}{2}}(a+b\log}{2+2m+3ibn}$$

```
[Out] 2*x^(1+m)*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*hypergeom([3/2, 1/4*(-2*I-2*
I*m+3*b*n)/b/n],[1/4*(-2*I-2*I*m+7*b*n)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*s
ec(a+b*ln(c*x^n))^(3/2)/(2+2*m+3*I*b*n)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4605, 4603, 371}

$$\int x^m \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{m+1}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(m+1)}{bn}\right),-\frac{2im-7bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sec^{\frac{3}{2}}(a+}{3ibn+2m+2}$$

```
[In] Int[x^m*Sec[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Hypergeometric2F1[3/
2, (3 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^(
(2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[a + b*Log[c*x^n]]^(3/2))/(2 + 2*m + (3*I)*
b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{3ib}{2}-\frac{1+m}{n}}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{3ib}{2}+\frac{1+m}{n}}}{\left(1+e^{2ia}x^{2ib}\right)^{3/2}}\,dx,x,cx^{n}\right.}{n}$$

$$= \frac{2x^{1+m}\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-7bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\text{s}}{2+2m+3ibn}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 470 vs. 2(130) = 260.

Time = 7.93 (sec) , antiderivative size = 470, normalized size of antiderivative = 3.62

$$\int x^m\sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx$$

$$= \frac{\sqrt{2}x^{1+m-ibn}\left(-\left(\left(4+8m+4m^2+b^2n^2\right)x^{2ibn}\sqrt{\frac{e^{ia}(cx^n)^{ib}}{1+e^{2ia}(cx^n)^{2ib}}}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\right.\right.\right.}{}$$

[In] Integrate[x^m*Sec[a + b*Log[c*x^n]]^(3/2),x]

[Out] (Sqrt[2]*x^(1 + m - I*b*n)*(-((4 + 8*m + 4*m^2 + b^2*n^2)*x^((2*I)*b*n)*Sqrt[(E^(I*a)*(c*x^n)^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I)/2)*b*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]) + (2 + 2*m + (3*I)*b*n)*((2 + 2*m + I*b*n)*Sqrt[(E^(I*a)*(c*x^n)^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))] - I*Sqrt[2]*x^(I*b*n)*Sqrt[Sec[a + b*Log[c*x^n]]]*(b*n*Cos[b*n*Log[x]] - 2*(1 + m)*Sin[b*n*Log[x]]))))/(b*n*(-2*I - (2*I)*m + 3*b*n)*(-2*(1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + b*n*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))

Maple [F]

$$\int x^{m}\sec \left(a +b \ln \left(c \,x^{n}\right)\right)^{\frac{3}{2}}d x$$

[In] int(x^m*sec(a+b*ln(c*x^n))^(3/2),x)

[Out] int(x^m*sec(a+b*ln(c*x^n))^(3/2),x)

Fricas [F(-2)]

Exception generated.

$$\int x^m \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \text{Exception raised: TypeError}$$

[In] integrate(x^m*sec(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integrate: implementation incomplete (constant residues)

Sympy [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \text{Timed out}$$

[In] integrate(x**m*sec(a+b*ln(c*x**n))**(3/2),x)

[Out] Timed out

Maxima [F]

$$\int x^m \sec^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int x^m \sec(b\log(cx^n) + a)^{\frac{3}{2}}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m*sec(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sec^{\frac{3}{2}}(a + b\log(cx^n))\,dx = \int x^m \left(\frac{1}{\cos(a + b\,\ln(c\,x^n))}\right)^{3/2} dx$$

```
[In] int(x^m*(1/cos(a + b*log(c*x^n)))^(3/2),x)
[Out] int(x^m*(1/cos(a + b*log(c*x^n)))^(3/2), x)
```

3.283 $\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx$

Optimal result . . . 2582
Rubi [A] (verified) . . . 2582
Mathematica [A] (verified) . . . 2583
Maple [F] . . . 2584
Fricas [F(-2)] . . . 2584
Sympy [F] . . . 2584
Maxima [F] . . . 2584
Giac [F] . . . 2585
Mupad [F(-1)] . . . 2585

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec(a+b\log(c$$
$$\overline{2+2m+ibn}$$

```
[Out] 2*x^(1+m)*hypergeom([1/2, 1/4*(-2*I-2*I*m+b*n)/b/n],[1/4*(-2*I-2*I*m+5*b*n)
/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)*sec
(a+b*ln(c*x^n))^(1/2)/(2+2*m+I*b*n)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 130, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4605, 4603, 371}

$$\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\sqrt{1+e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2im-bn+2i}{4bn},-\frac{2im-5bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec(a+b\log(c$$
$$\overline{ibn+2m+2}$$

```
[In] Int[x^m*Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Hypergeometric2F1[1/2,
 -1/4*(2*I + (2*I)*m - b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n), -(E^
((2*I)*a)*(c*x^n)^((2*I)*b))]*Sqrt[Sec[a + b*Log[c*x^n]]])/(2 + 2*m + I*b*n
)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sqrt{\sec(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{ib}{2}-\frac{1+m}{n}}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{ib}{2}+\frac{1+m}{n}}}{\sqrt{1+e^{2ia}x^{2ib}}}\,dx,x,cx^n\right)}{n}$$

$$= \frac{2x^{1+m}\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)\sqrt{\sec\left(a\right.}\cdots}{2+2m+ibn}$$

Mathematica [A] (verified)

Time = 0.66 (sec) , antiderivative size = 119, normalized size of antiderivative = 0.92

$$\int x^m\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}\,dx$$

$$= \frac{2\left(1+e^{2i(a+b\log(cx^n))}\right)x^{1+m}\,\text{Hypergeometric2F1}\left(1,-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2i(a+b\log(cx^n))}\right)\sqrt{\sec\left(a+\right.}\cdots}{2+2m+ibn}$$

```
[In] Integrate[x^m*Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*(1 + E^((2*I)*(a + b*Log[c*x^n])))*x^(1 + m)*Hypergeometric2F1[1, -1/4*(
2*I + (2*I)*m - 3*b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n), -E^((2*I)
*(a + b*Log[c*x^n]))]*Sqrt[Sec[a + b*Log[c*x^n]]])/(2 + 2*m + I*b*n)
```

Maple [F]

$$\int x^m \sqrt{\sec(a+b\ln(c\,x^n))}dx$$

```
[In] int(x^m*sec(a+b*ln(c*x^n))^(1/2),x)
[Out] int(x^m*sec(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx = \int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx$$

```
[In] integrate(x**m*sec(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(x**m*sqrt(sec(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int x^m \sqrt{\sec(a+b\log(cx^n))}\,dx = \int x^m \sqrt{\sec(b\log(cx^n)+a)}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x^m*sqrt(sec(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int x^m \sqrt{\sec(a + b\log(cx^n))}\,dx = \int x^m \sqrt{\sec(b\log(cx^n) + a)}\,dx$$

```
[In] integrate(x^m*sec(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x^m*sqrt(sec(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sqrt{\sec(a + b\log(cx^n))}\,dx = \int x^m \sqrt{\frac{1}{\cos(a + b\,\ln(c\,x^n))}}\,dx$$

```
[In] int(x^m*(1/cos(a + b*log(c*x^n)))^(1/2),x)
[Out] int(x^m*(1/cos(a + b*log(c*x^n)))^(1/2), x)
```

3.284 $\int \frac{x^m}{\sqrt{\sec(a+b\log(cx^n))}}\,dx$

Optimal result 2586
Rubi [A] (verified) 2586
Mathematica [B] (verified) 2587
Maple [F] 2588
Fricas [F(-2)] 2588
Sympy [F] 2589
Maxima [F] 2589
Giac [F] 2589
Mupad [F(-1)] 2589

Optimal result

Integrand size = 19, antiderivative size = 129

$$\int \frac{x^m}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+2im+bn}{4bn},-\frac{2i+2im-3bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-ibn)\sqrt{1+e^{2ia}(cx^n)^{2ib}}\sqrt{\sec(a+b\log(cx^n))}}$$

```
[Out] 2*x^(1+m)*hypergeom([-1/2, 1/4*(-2*I-2*I*m-b*n)/b/n],[1/4*(-2*I-2*I*m+3*b*n
)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2+2*m-I*b*n)/(1+exp(2*I*a)*(c*x^n)^(2*
I*b))^(1/2)/sec(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.98, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4605, 4603, 371}

$$\int \frac{x^m}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = \frac{2x^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bn}-1\right),-\frac{2im-3bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(-ibn+2m+2)\sqrt{1+e^{2ia}(cx^n)^{2ib}}\sqrt{\sec(a+b\log(cx^n))}}$$

```
[In] Int[x^m/Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Hypergeometric2F1[-1/2, (-1 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(
2*I + (2*I)*m - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 + 2*m
```

```
- I*b*n)*Sqrt[1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Sec[a + b*Log[c*x^n]]
])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\sqrt{\sec(a+b\log(x))}}\,dx, x, cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{\frac{ib}{2}-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1+m}{n}}\sqrt{1+e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{n\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\\
&= \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-3bn}{4bn},-e^{2ia}\left(cx^n\right)^{2ib}\right)}{(2+2m-ibn)\sqrt{1+e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 437 vs. $2(129) = 258$.

Time = 5.65 (sec) , antiderivative size = 437, normalized size of antiderivative = 3.39

$$\int \frac{x^m}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = -\frac{2be^{2i(a-bn\log(x)+b\log(cx^n))}nx^{1+m}\left((2i+2im+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{i\left(1+m+\frac{3ibn}{2}\right)}{2bn},-\frac{2i+2im-7bn}{4bn}\right.\right.}{(2+2m-ibn)(2+2m+3ibn)\left(2+2m-ibn+e^{2i(a-bn\log(\cdot\right.}} + \frac{2x^{1+m}\cos(a-bn\log(x)+b\log(cx^n))}{\sqrt{\sec(a+b\log(cx^n))}\,(2(1+m)\cos(a-bn\log(x)+b\log(cx^n))-bn\sin(a-bn\log(x)+b\log(cx^n)))}$$

```
[In] Integrate[x^m/Sqrt[Sec[a + b*Log[c*x^n]]],x]
```

```
[Out] (-2*b*E^((2*I)*(a - b*n*Log[x] + b*Log[c*x^n]))*n*x^(1 + m)*((2*I + (2*I)*m
 + b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I)/2)*b
*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I
)*b))] + (-2*I - (2*I)*m + 3*b*n)*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*
m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^(
(2*I)*b))]))/((2 + 2*m - I*b*n)*(2 + 2*m + (3*I)*b*n)*(2 + 2*m - I*b*n + E^
((2*I)*(a - b*n*Log[x] + b*Log[c*x^n]))*(2 + 2*m + I*b*n))*Sqrt[1 + E^((2*I
)*a)*(c*x^n)^((2*I)*b)]*Sqrt[(E^(I*a)*(c*x^n)^(I*b))/(2 + 2*E^((2*I)*a)*(c*
x^n)^((2*I)*b))]) + (2*x^(1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]])/(Sqrt[
Sec[a + b*Log[c*x^n]]]*(2*(1 + m)*Cos[a - b*n*Log[x] + b*Log[c*x^n]] - b*n*
Sin[a - b*n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \frac{x^m}{\sqrt{\sec(a+b\ln(c\,x^n))}}dx$$

```
[In] int(x^m/sec(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(x^m/sec(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\sqrt{\sec(a+b\log(cx^n))}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{x^m}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{x^m}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx$$

```
[In] integrate(x**m/sec(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(x**m/sqrt(sec(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{x^m}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{x^m}{\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x^m/sqrt(sec(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \frac{x^m}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{x^m}{\sqrt{\sec\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x^m/sqrt(sec(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\sqrt{\sec\left(a+b\log\left(cx^n\right)\right)}}\,dx=\int \frac{x^m}{\sqrt{\frac{1}{\cos\left(a+b\ln\left(c\,x^n\right)\right)}}}\,dx$$

```
[In] int(x^m/(1/cos(a + b*log(c*x^n)))^(1/2),x)
[Out] int(x^m/(1/cos(a + b*log(c*x^n)))^(1/2), x)
```

3.285 $\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2590
Rubi [A] (verified) 2590
Mathematica [A] (verified) 2592
Maple [F] 2592
Fricas [F(-2)] 2592
Sympy [F] 2593
Maxima [F] 2593
Giac [F] 2593
Mupad [F(-1)] 2593

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},-\frac{2i+2im+3bn}{4bn},-\frac{2i+2im-bn}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-3ibn)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x^(1+m)*hypergeom([-3/2, 1/4*(-2*I-2*I*m-3*b*n)/b/n],[1/4*(-2*I-2*I*m+b*n
)/b/n],-exp(2*I*a)*(c*x^n)^(2*I*b))/(2+2*m-3*I*b*n)/(1+exp(2*I*a)*(c*x^n)^(
2*I*b))^(3/2)/sec(a+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4605, 4603, 371}

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bn}-3\right),-\frac{2im-bn+2i}{4bn},-e^{2ia}(cx^n)^{2ib}\right)}{(-3ibn+2m+2)\left(1+e^{2ia}(cx^n)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[x^m/Sec[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*Hypergeometric2F1[-3/2, (-3 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(
2*I + (2*I)*m - b*n)/(b*n), -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/((2 + 2*m -
```

```
(3*I)*b*n)*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Sec[a + b*Log[c*x^n]]^
(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\sec^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{\frac{3ib}{2}-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1+m}{n}}\left(1+e^{2ia}x^{2ib}\right)^{3/2}\,dx, x, cx^n\right)}{n\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\\
&= \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-bn}{4bn},-e^{2ia}\left(cx^n\right)^{2ib}\right)}{(2+2m-3ibn)\left(1+e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\sec^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}
\end{aligned}$$

Mathematica [A] (verified)

Time = 2.08 (sec) , antiderivative size = 202, normalized size of antiderivative = 1.55

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\left(3b^2n^2\left(1+e^{2ia}(cx^n)^{2ib}\right)\text{Hypergeometric2F1}\left(1,-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-5bn}{4bn},-e^{2i(a+b\log(cx^n))}\right)\sec^2(a+ \dots}{(2+2m+ibn)(2+2m-3ibn)(2+2m+3ibn)\sec^{\frac{3}{2}} \dots}$$

```
[In] Integrate[x^m/Sec[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*(3*b^2*n^2*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Hypergeometric2
F1[1, -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), -1/4*(2*I + (2*I)*m - 5*b*n)/(b*n
), -E^((2*I)*(a + b*Log[c*x^n]))]*Sec[a + b*Log[c*x^n]]^2 + (2 + 2*m + I*b*
n)*(2 + 2*m + 3*b*n*Tan[a + b*Log[c*x^n]])))/((2 + 2*m + I*b*n)*(2 + 2*m -
(3*I)*b*n)*(2 + 2*m + (3*I)*b*n)*Sec[a + b*Log[c*x^n]]^(3/2))
```

Maple [F]

$$\int \frac{x^m}{\sec\left(a+b\ln\left(c\,x^n\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(x^m/sec(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(x^m/sec(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(x**m/sec(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(x**m/sec(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\sec(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m/sec(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\sec(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(x^m/sec(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(x^m/sec(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\sec^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\left(\frac{1}{\cos(a+b\ln(c\,x^n))}\right)^{3/2}}\,dx$$

```
[In] int(x^m/(1/cos(a + b*log(c*x^n)))^(3/2),x)
[Out] int(x^m/(1/cos(a + b*log(c*x^n)))^(3/2), x)
```

3.286 $\int (ex)^m \sec^p(d(a+b\log(cx^n)))\,dx$

Optimal result 2594
Rubi [A] (verified) 2594
Mathematica [A] (verified) 2595
Maple [F] 2596
Fricas [F] 2596
Sympy [F] 2596
Maxima [F] 2596
Giac [F] 2597
Mupad [F(-1)] 2597

Optimal result

Integrand size = 21, antiderivative size = 139

$$\int (ex)^m \sec^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \text{Hypergeometric2F1}\left(p,-\frac{i+im-bdnp}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}+p\right),-e^{2iad}(cx^n)^{2ibd}\right)\sec^p}{e(1+m+ibdnp)}$$

```
[Out] (e*x)^(1+m)*(1+exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*hypergeom([p, 1/2*(-I-I*m+
b*d*n*p)/b/d/n],[1-1/2*I*(1+m)/b/d/n+1/2*p],-exp(2*I*a*d)*(c*x^n)^(2*I*b*d)
)*sec(d*(a+b*ln(c*x^n)))^p/e/(1+m+I*b*d*n*p)
```

Rubi [A] (verified)

Time = 0.15 (sec) , antiderivative size = 133, normalized size of antiderivative = 0.96, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4605, 4603, 371}

$$\int (ex)^m \sec^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p \text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(p-\frac{i(m+1)}{bdn}\right),\frac{1}{2}\left(-\frac{i(m+1)}{bdn}+p+2\right),-e^{2iad}(cx^n)^{2ibd}\right.}{e(ibdnp+m+1)}$$

```
[In] Int[(e*x)^m*Sec[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*Hypergeometric2F1[
p, (((-I)*(1 + m))/(b*d*n) + p)/2, (2 - (I*(1 + m))/(b*d*n) + p)/2, -(E^((2
*I)*a*d)*(c*x^n)^((2*I)*b*d))]*Sec[d*(a + b*Log[c*x^n])]^p)/(e*(1 + m + I*b
*d*n*p))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sec^p(d(a+b\log(x)))\,dx, x, cx^n\right)}{en}$$
$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}-ibdp}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p\sec^p\left(d(a+b\log\left(cx^n\right))\right)\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}+ibdp}(1\right.}{en}$$
$$= \frac{(ex)^{1+m}\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p\text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{i(1+m)}{bdn}+p\right),\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}+p\right),-e^{2iad}\right.}{e(1+m+ibdnp)}$$

Mathematica [A] (verified)

Time = 1.18 (sec) , antiderivative size = 169, normalized size of antiderivative = 1.22

$$\int (ex)^m\sec^p\left(d(a+b\log\left(cx^n\right))\right)\,dx$$
$$= \frac{2^px(ex)^m\left(\frac{e^{iad}(cx^n)^{ibd}}{1+e^{2iad}(cx^n)^{2ibd}}\right)^p\left(1+e^{2iad}(cx^n)^{2ibd}\right)^p\text{Hypergeometric2F1}\left(p,-\frac{i(1+m+ibdnp)}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}+p\right)\right.}{1+m+ibdnp}$$

```
[In] Integrate[(e*x)^m*Sec[d*(a + b*Log[c*x^n])]^p,x]
[Out] (2^p*x*(e*x)^m*((E^(I*a*d)*(c*x^n)^(I*b*d))/(1 + E^((2*I)*a*d)*(c*x^n)^((2*
I)*b*d)))^p*(1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*Hypergeometric2F1[p,
((-1/2*I)*(1 + m + I*b*d*n*p))/(b*d*n), (2 - (I*(1 + m))/(b*d*n) + p)/2, -(
E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))])/(1 + m + I*b*d*n*p)
```

Maple [F]

$$\int (ex)^m \sec (d(a + b\ln (c\,x^n)))^p dx$$

```
[In] int((e*x)^m*sec(d*(a+b*ln(c*x^n)))^p,x)
[Out] int((e*x)^m*sec(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \sec^p (d(a + b\log (cx^n)))\ dx = \int (ex)^m \sec ((b\log (cx^n) + a)d)^p\ dx$$

```
[In] integrate((e*x)^m*sec(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*sec(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int (ex)^m \sec^p (d(a + b\log (cx^n)))\ dx = \int (ex)^m \sec^p (ad + bd\log (cx^n))\, dx$$

```
[In] integrate((e*x)**m*sec(d*(a+b*ln(c*x**n)))**p,x)
[Out] Integral((e*x)**m*sec(a*d + b*d*log(c*x**n))**p, x)
```

Maxima [F]

$$\int (ex)^m \sec^p (d(a + b\log (cx^n)))\ dx = \int (ex)^m \sec ((b\log (cx^n) + a)d)^p\ dx$$

```
[In] integrate((e*x)^m*sec(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*sec((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F]

$$\int (ex)^m \sec^p(d(a+b\log(cx^n)))\,dx = \int (ex)^m \sec((b\log(cx^n)+a)d)^p\,dx$$

```
[In] integrate((e*x)^m*sec(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*sec((b*log(c*x^n) + a)*d)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \sec^p(d(a+b\log(cx^n)))\,dx = \int (e\,x)^m \left(\frac{1}{\cos(d\,(a+b\,\ln(c\,x^n)))}\right)^p dx$$

```
[In] int((e*x)^m*(1/cos(d*(a + b*log(c*x^n))))^p,x)
[Out] int((e*x)^m*(1/cos(d*(a + b*log(c*x^n))))^p, x)
```

3.287 $\int x\sec^p(a+b\log(cx^n))\,dx$

Optimal result 2598
Rubi [A] (verified) 2598
Mathematica [A] (verified) 2599
Maple [F] 2600
Fricas [F] 2600
Sympy [F] 2600
Maxima [F] 2600
Giac [F] 2601
Mupad [F(-1)] 2601

Optimal result

Integrand size = 15, antiderivative size = 106

$$\int x\sec^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{2i}{bn}+p\right),\frac{1}{2}\left(2-\frac{2i}{bn}+p\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^p(a+b\log(c}{2+ibnp}$$

```
[Out] x^2*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^p*hypergeom([p, -I/b/n+1/2*p],[1-I/b/n+1
/2*p],-exp(2*I*a)*(c*x^n)^(2*I*b))*sec(a+b*ln(c*x^n))^p/(2+I*b*n*p)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 106, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4605, 4603, 371}

$$\int x\sec^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(p-\frac{2i}{bn}\right),\frac{1}{2}\left(p-\frac{2i}{bn}+2\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^p(a+b\log(cx^n}{2+ibnp}$$

```
[In] Int[x*Sec[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x^2*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Hypergeometric2F1[p, ((-2*I)/(b*
n) + p)/2, (2 - (2*I)/(b*n) + p)/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[a
 + b*Log[c*x^n]]^p)/(2 + I*b*n*p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rule 4605

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Sec[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\sec^p(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-\frac{2}{n}-ibp}\left(1+e^{2ia}(cx^n)^{2ib}\right)^p\sec^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}+ibp}\left(1+e^{2ia}x^{2ib}\right)^{-p}\,dx,\right.}{n}$$

$$= \frac{x^2\left(1+e^{2ia}(cx^n)^{2ib}\right)^p\text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{2i}{bn}+p\right),\frac{1}{2}\left(2-\frac{2i}{bn}+p\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^p(a}{2+ibnp}$$

Mathematica [A] (verified)

Time = 0.83 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.34

$$\int x\sec^p\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{i2^px^2\left(\frac{e^{ia}(cx^n)^{ib}}{1+e^{2ia}(cx^n)^{2ib}}\right)^p\left(1+e^{2ia}(cx^n)^{2ib}\right)^p\text{Hypergeometric2F1}\left(-\frac{i}{bn}+\frac{p}{2},p,1-\frac{i}{bn}+\frac{p}{2},-e^{2ia}(cx^n)^{2ib}\right)}{-2i+bnp}$$

```
[In] Integrate[x*Sec[a + b*Log[c*x^n]]^p,x]
```

```
[Out] ((-I)*2^p*x^2*((E^(I*a)*(c*x^n)^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))
^p*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Hypergeometric2F1[(-I)/(b*n) + p/2
, p, 1 - I/(b*n) + p/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(-2*I + b*n*p)
```

Maple [F]

$$\int x\mathrm{sec}\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(x*sec(a+b*ln(c*x^n))^p,x)
[Out] int(x*sec(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int x\sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(x*sec(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int x\sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*sec(a+b*ln(c*x**n))**p,x)
[Out] Integral(x*sec(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int x\sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\sec\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(x*sec(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int x \sec^p(a + b\log(cx^n))\,dx = \int x \sec(b\log(cx^n) + a)^p\,dx$$

```
[In] integrate(x*sec(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(x*sec(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int x \sec^p(a + b\log(cx^n))\,dx = \int x \left(\frac{1}{\cos(a + b\ln(c\,x^n))}\right)^p\,dx$$

```
[In] int(x*(1/cos(a + b*log(c*x^n)))^p,x)
[Out] int(x*(1/cos(a + b*log(c*x^n)))^p, x)
```

3.288 $\int \sec^p(a+b\log(cx^n))\,dx$

Optimal result 2602
Rubi [A] (verified) 2602
Mathematica [A] (verified) 2603
Maple [F] 2604
Fricas [F] 2604
Sympy [F] 2604
Maxima [F] 2604
Giac [F] 2605
Mupad [F(-1)] 2605

Optimal result

Integrand size = 13, antiderivative size = 107

$$\int \sec^p(a+b\log(cx^n))\,dx = \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,-\frac{i-bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}+p\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^p(a+b\log(cx^n))}{1+ibnp}$$

```
[Out] x*(1+exp(2*I*a)*(c*x^n)^(2*I*b))^p*hypergeom([p, 1/2*(-I+b*n*p)/b/n],[1-1/2
*I/b/n+1/2*p],-exp(2*I*a)*(c*x^n)^(2*I*b))*sec(a+b*ln(c*x^n))^p/(1+I*b*n*p)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4599, 4603, 371}

$$\int \sec^p(a+b\log(cx^n))\,dx = \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,-\frac{i-bnp}{2bn},\frac{1}{2}\left(p-\frac{i}{bn}+2\right),-e^{2ia}(cx^n)^{2ib}\right)\sec^p(a+b\log(cx^n))}{1+ibnp}$$

```
[In] Int[Sec[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Hypergeometric2F1[p, -1/2*(I - b*n
*p)/(b*n), (2 - I/(b*n) + p)/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Sec[a + b
*Log[c*x^n]]^p)/(1 + I*b*n*p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4599

```
Int[Sec[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Sec[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4603

```
Int[((e_.)*(x_))^(m_.)*Sec[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.), x_Symbol]
:> Dist[Sec[d*(a + b*Log[x])]^p*((1 + E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 + E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right) \text{Subst}\left(\int x^{-1+\frac{1}{n}} \sec^p(a+b\log(x))\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}-ibp}\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \sec^p\left(a+b\log\left(cx^n\right)\right)\right) \text{Subst}\left(\int x^{-1+\frac{1}{n}+ibp}\left(1+e^{2ia}x^{2ib}\right)^{-p}\,dx, x\right.}{n}$$

$$= \frac{x\left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p, -\frac{i-bnp}{2bn}, \frac{1}{2}\left(2-\frac{i}{bn}+p\right), -e^{2ia}(cx^n)^{2ib}\right) \sec^p\left(a+b\log\right.}{1+ibnp}$$

Mathematica [A] (verified)

Time = 0.66 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.33

$$\int \sec^p\left(a+b\log\left(cx^n\right)\right)\,dx =$$

$$-\frac{i2^p x\left(\frac{e^{ia}(cx^n)^{ib}}{1+e^{2ia}(cx^n)^{2ib}}\right)^p \left(1+e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p, \frac{-i+bnp}{2bn}, \frac{1}{2}\left(2-\frac{i}{bn}+p\right), -e^{2ia}(cx^n)^{2ib}\right)}{-i+bnp}$$

```
[In] Integrate[Sec[a + b*Log[c*x^n]]^p,x]
```

```
[Out] ((-I)*2^p*x*((E^(I*a)*(c*x^n)^(I*b))/(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))^p
*(1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Hypergeometric2F1[p, (-I + b*n*p)/(2
*b*n), (2 - I/(b*n) + p)/2, -(E^((2*I)*a)*(c*x^n)^((2*I)*b))])/(-I + b*n*p)
```

Maple [F]

$$\int \sec \left(a+b \ln \left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(sec(a+b*ln(c*x^n))^p,x)
[Out] int(sec(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int \sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(sec(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int \sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(sec(a+b*ln(c*x**n))**p,x)
[Out] Integral(sec(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int \sec^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \sec\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(sec(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int \sec^p(a + b\log(cx^n))\,dx = \int \sec(b\log(cx^n) + a)^p\,dx$$

```
[In] integrate(sec(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(sec(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \sec^p(a + b\log(cx^n))\,dx = \int \left(\frac{1}{\cos(a + b\ln(c\,x^n))}\right)^p dx$$

```
[In] int((1/cos(a + b*log(c*x^n)))^p,x)
[Out] int((1/cos(a + b*log(c*x^n)))^p, x)
```

3.289 $\int x^2 \csc(a+b\log(cx^n))\,dx$

Optimal result . . . 2606
Rubi [A] (verified) . . . 2606
Mathematica [A] (verified) . . . 2607
Maple [F] . . . 2608
Fricas [F] . . . 2608
Sympy [F] . . . 2608
Maxima [F] . . . 2608
Giac [F] . . . 2609
Mupad [F(-1)] . . . 2609

Optimal result

Integrand size = 15, antiderivative size = 86

$$\int x^2 \csc(a+b\log(cx^n))\,dx = \frac{2e^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{3i}{bn}\right),\frac{3}{2}\left(1-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{3i-bn}$$

```
[Out] 2*exp(I*a)*x^3*(c*x^n)^(I*b)*hypergeom([1, 1/2-3/2*I/b/n],[3/2-3/2*I/b/n],e
xp(2*I*a)*(c*x^n)^(2*I*b))/(3*I-b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4606, 4602, 371}

$$\int x^2 \csc(a+b\log(cx^n))\,dx = \frac{2e^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{3i}{bn}\right),\frac{3}{2}\left(1-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{-bn+3i}$$

```
[In] Int[x^2*Csc[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x^3*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - (3*I)/(b*n))/2, (3*(
1 - I/(b*n)))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(3*I - b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int x^{-1+\frac{3}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= -\frac{\left(2ie^{ia}x^3(cx^n)^{-3/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{3}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\
&= \frac{2e^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{3i}{bn}\right),\frac{3}{2}\left(1-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{3i-bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 1.15 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.95

$$\int x^2\csc\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2e^{ia}x^3(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{3i}{2bn},\frac{3}{2}-\frac{3i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{-3i+bn}$$

```
[In] Integrate[x^2*Csc[a + b*Log[c*x^n]],x]
```

```
[Out] (-2*E^(I*a)*x^3*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - ((3*I)/2)/(b*n), 3
/2 - ((3*I)/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(-3*I + b*n)
```

Maple [F]

$$\int x^{2} \csc \left(a+b \ln \left(c \,x^{n}\right)\right)d x$$

```
[In] int(x^2*csc(a+b*ln(c*x^n)),x)
[Out] int(x^2*csc(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int x^2 \csc(a+b\log(cx^n))\ dx = \int x^2 \csc(b\log(cx^n)+a)\ dx$$

```
[In] integrate(x^2*csc(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(x^2*csc(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int x^2 \csc(a+b\log(cx^n))\ dx = \int x^2 \csc(a+b\log(cx^n))\,dx$$

```
[In] integrate(x**2*csc(a+b*ln(c*x**n)),x)
[Out] Integral(x**2*csc(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int x^2 \csc(a+b\log(cx^n))\ dx = \int x^2 \csc(b\log(cx^n)+a)\ dx$$

```
[In] integrate(x^2*csc(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(x^2*csc(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int x^2 \csc(a + b\log(cx^n))\,dx = \int x^2 \csc(b\log(cx^n) + a)\,dx$$

```
[In] integrate(x^2*csc(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(x^2*csc(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^2 \csc(a + b\log(cx^n))\,dx = \int \frac{x^2}{\sin(a + b\,\ln(c\,x^n))}\,dx$$

```
[In] int(x^2/sin(a + b*log(c*x^n)),x)
[Out] int(x^2/sin(a + b*log(c*x^n)), x)
```

3.290 $\int x \csc(a + b\log(cx^n))\, dx$

Optimal result . . . 2610
Rubi [A] (verified) . . . 2610
Mathematica [A] (verified) . . . 2611
Maple [F] . . . 2612
Fricas [F] . . . 2612
Sympy [F] . . . 2612
Maxima [F] . . . 2612
Giac [F] . . . 2613
Mupad [F(-1)] . . . 2613

Optimal result

Integrand size = 13, antiderivative size = 86

$$\int x \csc(a + b\log(cx^n))\, dx = \frac{2e^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{2i}{bn}\right), \frac{1}{2}\left(3 - \frac{2i}{bn}\right), e^{2ia}(cx^n)^{2ib}\right)}{2i - bn}$$

```
[Out] 2*exp(I*a)*x^2*(c*x^n)^(I*b)*hypergeom([1, 1/2-I/b/n],[3/2-I/b/n],exp(2*I*a
)*(c*x^n)^(2*I*b))/(2*I-b*n)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 86, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4606, 4602, 371}

$$\int x \csc(a + b\log(cx^n))\, dx = \frac{2e^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1, \frac{1}{2}\left(1 - \frac{2i}{bn}\right), \frac{1}{2}\left(3 - \frac{2i}{bn}\right), e^{2ia}(cx^n)^{2ib}\right)}{-bn + 2i}$$

```
[In] Int[x*Csc[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x^2*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - (2*I)/(b*n))/2, (3 -
 (2*I)/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(2*I - b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= -\frac{\left(2ie^{ia}x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{2}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\ &= \frac{2e^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{2i}{bn}\right),\frac{1}{2}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{2i-bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 1.11 (sec) , antiderivative size = 78, normalized size of antiderivative = 0.91

$$\int x\csc\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2e^{ia}x^2(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{bn},\frac{3}{2}-\frac{i}{bn},e^{2i(a+b\log(cx^n))}\right)}{-2i+bn}$$

```
[In] Integrate[x*Csc[a + b*Log[c*x^n]],x]
```

```
[Out] (-2*E^(I*a)*x^2*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - I/(b*n), 3/2 - I/(
b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(-2*I + b*n)
```

Maple [F]

$$\int x\csc\left(a+b\ln\left(c\,x^{n}\right)\right)dx$$

```
[In] int(x*csc(a+b*ln(c*x^n)),x)
[Out] int(x*csc(a+b*ln(c*x^n)),x)
```

Fricas [F]

$$\int x\csc\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc\left(b\log\left(cx^{n}\right)+a\right)\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n)),x, algorithm="fricas")
[Out] integral(x*csc(b*log(c*x^n) + a), x)
```

Sympy [F]

$$\int x\csc\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*csc(a+b*ln(c*x**n)),x)
[Out] Integral(x*csc(a + b*log(c*x**n)), x)
```

Maxima [F]

$$\int x\csc\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc\left(b\log\left(cx^{n}\right)+a\right)\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n)),x, algorithm="maxima")
[Out] integrate(x*csc(b*log(c*x^n) + a), x)
```

Giac [F]

$$\int x \csc(a + b\log(cx^n))\,dx = \int x \csc(b\log(cx^n) + a)\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(x*csc(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int x \csc(a + b\log(cx^n))\,dx = \int \frac{x}{\sin(a + b\,\ln(c\,x^n))}\,dx$$

```
[In] int(x/sin(a + b*log(c*x^n)),x)
[Out] int(x/sin(a + b*log(c*x^n)), x)
```

3.291 $\int \csc(a+b\log(cx^n))\,dx$

Optimal result 2614
Rubi [A] (verified) 2614
Mathematica [A] (verified) 2615
Maple [F] 2616
Fricas [F] 2616
Sympy [F] 2616
Maxima [F] 2616
Giac [F] 2617
Mupad [F(-1)] 2617

Optimal result

Integrand size = 11, antiderivative size = 84

$$\int \csc(a+b\log(cx^n))\,dx = \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{i-bn}$$

```
[Out] 2*exp(I*a)*x*(c*x^n)^(I*b)*hypergeom([1, 1/2-1/2*I/b/n],[3/2-1/2*I/b/n],exp
(2*I*a)*(c*x^n)^(2*I*b))/(I-b*n)
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.273, Rules used = {4600, 4602, 371}

$$\int \csc(a+b\log(cx^n))\,dx = \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{-bn+i}$$

```
[In] Int[Csc[a + b*Log[c*x^n]],x]
```

```
[Out] (2*E^(I*a)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - I/(b*n))/2, (3 - I/(b*
n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(I - b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= -\frac{\left(2ie^{ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{1}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\ &= \frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{i-bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.91 (sec) , antiderivative size = 80, normalized size of antiderivative = 0.95

$$\int \csc\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{2e^{ia}x(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{2bn},\frac{3}{2}-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{-i+bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]],x]
[Out] (-2*E^(I*a)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - (I/2)/(b*n), 3/2 - (
I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(-I + b*n)
```

Maple [F]

$$\int \csc \left(a + b\ln \left(c\,x^{n}\right)\right) dx$$

[In] int(csc(a+b*ln(c*x^n)),x)

[Out] int(csc(a+b*ln(c*x^n)),x)

Fricas [F]

$$\int \csc \left(a + b\log \left(cx^{n}\right)\right)\,dx = \int \csc \left(b\log \left(cx^{n}\right) + a\right)\,dx$$

[In] integrate(csc(a+b*log(c*x^n)),x, algorithm="fricas")

[Out] integral(csc(b*log(c*x^n) + a), x)

Sympy [F]

$$\int \csc \left(a + b\log \left(cx^{n}\right)\right)\,dx = \int \csc \left(a + b\log \left(cx^{n}\right)\right) dx$$

[In] integrate(csc(a+b*ln(c*x**n)),x)

[Out] Integral(csc(a + b*log(c*x**n)), x)

Maxima [F]

$$\int \csc \left(a + b\log \left(cx^{n}\right)\right)\,dx = \int \csc \left(b\log \left(cx^{n}\right) + a\right)\,dx$$

[In] integrate(csc(a+b*log(c*x^n)),x, algorithm="maxima")

[Out] integrate(csc(b*log(c*x^n) + a), x)

Giac [F]

$$\int \csc(a+b\log(cx^n))\,dx = \int \csc(b\log(cx^n)+a)\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n)),x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a), x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc(a+b\log(cx^n))\,dx = \int \frac{1}{\sin(a+b\,\ln(c\,x^n))}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n)),x)
[Out] int(1/sin(a + b*log(c*x^n)), x)
```

3.292 $\int \frac{\csc(a+b\log(cx^n))}{x} \, dx$

Optimal result 2618
Rubi [A] (verified) 2618
Mathematica [B] (verified) 2619
Maple [A] (verified) 2619
Fricas [B] (verification not implemented) 2619
Sympy [A] (verification not implemented) 2620
Maxima [A] (verification not implemented) 2620
Giac [F] 2620
Mupad [B] (verification not implemented) 2620

Optimal result

Integrand size = 15, antiderivative size = 20

$$\int \frac{\csc(a+b\log(cx^n))}{x} \, dx = -\frac{\operatorname{arctanh}(\cos(a+b\log(cx^n)))}{bn}$$

[Out] -arctanh(cos(a+b*ln(c*x^n)))/b/n

Rubi [A] (verified)

Time = 0.02 (sec) , antiderivative size = 20, normalized size of antiderivative = 1.00, number of steps used = 2, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.067, Rules used = {3855}

$$\int \frac{\csc(a+b\log(cx^n))}{x} \, dx = -\frac{\operatorname{arctanh}(\cos(a+b\log(cx^n)))}{bn}$$

[In] Int[Csc[a + b*Log[c*x^n]]/x,x]

[Out] -(ArcTanh[Cos[a + b*Log[c*x^n]]]/(b*n))

Rule 3855

```
Int[csc[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-ArcTanh[Cos[c + d*x]]/d, x]
 /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \csc(a+bx) \, dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{\operatorname{arctanh}(\cos(a+b\log(cx^n)))}{bn} \end{aligned}$$

Mathematica [B] (verified)

Leaf count is larger than twice the leaf count of optimal. 54 vs. 2(20) = 40.

Time = 0.05 (sec) , antiderivative size = 54, normalized size of antiderivative = 2.70

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = -\frac{\log\left(\cos\left(\frac{a}{2}+\frac{1}{2}b\log(cx^n)\right)\right)}{bn}+\frac{\log\left(\sin\left(\frac{a}{2}+\frac{1}{2}b\log(cx^n)\right)\right)}{bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]/x,x]
[Out] -(Log[Cos[a/2 + (b*Log[c*x^n])/2]]/(b*n)) + Log[Sin[a/2 + (b*Log[c*x^n])/2]
]/(b*n)
```

Maple [A] (verified)

Time = 0.40 (sec) , antiderivative size = 24, normalized size of antiderivative = 1.20

method	result
parallelrisch	$\frac{\ln\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)\right)}{bn}$
derivativedivides	$-\frac{\ln(\csc(a+b\ln(c\,x^n))+\cot(a+b\ln(c\,x^n)))}{nb}$
default	$-\frac{\ln(\csc(a+b\ln(c\,x^n))+\cot(a+b\ln(c\,x^n)))}{nb}$
risch	$\frac{\ln\left(c^{ib}(x^n)^{ib}\mathrm{e}^{-\frac{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{2}}\mathrm{e}^{\frac{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{\frac{b\pi\,\mathrm{csgn}(ic\,x^n)^3}{2}}\mathrm{e}^{-\frac{b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{ia}-1\right.}{bn}$

```
[In] int(csc(a+b*ln(c*x^n))/x,x,method=_RETURNVERBOSE)
[Out] ln(tan(1/2*a+b*ln((c*x^n)^(1/2))))/b/n
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 45 vs. 2(20) = 40.

Time = 0.25 (sec) , antiderivative size = 45, normalized size of antiderivative = 2.25

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = -\frac{\log\left(\frac{1}{2}\cos(bn\log(x)+b\log(c)+a)+\frac{1}{2}\right)-\log\left(-\frac{1}{2}\cos(bn\log(x)+b\log(c)+a)+\frac{1}{2}\right)}{2\,bn}$$

```
[In] integrate(csc(a+b*log(c*x^n))/x,x, algorithm="fricas")
[Out] -1/2*(log(1/2*cos(b*n*log(x) + b*log(c) + a) + 1/2) - log(-1/2*cos(b*n*log(
x) + b*log(c) + a) + 1/2))/(b*n)
```

Sympy [A] (verification not implemented)

Time = 1.03 (sec) , antiderivative size = 49, normalized size of antiderivative = 2.45

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = -\begin{cases} -\log(x)\csc(a) & \text{for } b=0 \\ -\log(x)\csc(a+b\log(c)) & \text{for } n=0 \\ \frac{\log(\cot(a+b\log(cx^n))+\csc(a+b\log(cx^n)))}{bn} & \text{otherwise} \end{cases}$$

```
[In] integrate(csc(a+b*ln(c*x**n))/x,x)
[Out] -Piecewise((-log(x)*csc(a), Eq(b, 0)), (-log(x)*csc(a + b*log(c)), Eq(n, 0)
), (log(cot(a + b*log(c*x**n)) + csc(a + b*log(c*x**n)))/(b*n), True))
```

Maxima [A] (verification not implemented)

none

Time = 0.20 (sec) , antiderivative size = 32, normalized size of antiderivative = 1.60

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = -\frac{\log(\cot(b\log(cx^n)+a)+\csc(b\log(cx^n)+a))}{bn}$$

```
[In] integrate(csc(a+b*log(c*x^n))/x,x, algorithm="maxima")
[Out] -log(cot(b*log(c*x^n) + a) + csc(b*log(c*x^n) + a))/(b*n)
```

Giac [F]

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc(b\log(cx^n)+a)}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)/x, x)
```

Mupad [B] (verification not implemented)

Time = 28.95 (sec) , antiderivative size = 68, normalized size of antiderivative = 3.40

$$\int \frac{\csc(a+b\log(cx^n))}{x}\,dx = \frac{\ln\left(\frac{e^{a\,1i}\,(c\,x^n)^{b\,1i}\,2i-2i}{x}\right)}{b\,n} - \frac{\ln\left(\frac{e^{a\,1i}\,(c\,x^n)^{b\,1i}\,2i+2i}{x}\right)}{b\,n}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))),x)
[Out] log((exp(a*1i)*(c*x^n)^(b*1i)*2i - 2i)/x)/(b*n) - log((exp(a*1i)*(c*x^n)^(b
*1i)*2i + 2i)/x)/(b*n)
```

3.293 $\int \frac{\csc(a+b\log(cx^n))}{x^2}\,dx$

Optimal result 2621
Rubi [A] (verified) 2621
Mathematica [A] (verified) 2622
Maple [F] 2623
Fricas [F] 2623
Sympy [F] 2623
Maxima [F] 2623
Giac [F] 2624
Mupad [F(-1)] 2624

Optimal result

Integrand size = 15, antiderivative size = 85

$$\int \frac{\csc(a+b\log(cx^n))}{x^2}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(i+bn)x}$$

```
[Out] -2*exp(I*a)*(c*x^n)^(I*b)*hypergeom([1, 1/2+1/2*I/b/n],[3/2+1/2*I/b/n],exp(
2*I*a)*(c*x^n)^(2*I*b))/(I+b*n)/x
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4606, 4602, 371}

$$\int \frac{\csc(a+b\log(cx^n))}{x^2}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{x(bn+i)}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 + I/(b*n))/2, (3 + I/(b*n
))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((I + b*n)*x)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{\frac{1}{n}}\,\text{Subst}\left(\int x^{-1-\frac{1}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{nx}\\ &= -\frac{\left(2ie^{ia}(cx^n)^{\frac{1}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+ib-\frac{1}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{nx}\\ &= -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{i}{bn}\right),\frac{1}{2}\left(3+\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(i+bn)x}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.82 (sec) , antiderivative size = 82, normalized size of antiderivative = 0.96

$$\int\frac{\csc(a+b\log(cx^n))}{x^2}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}+\frac{i}{2bn},\frac{3}{2}+\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{(i+bn)x}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]/x^2,x]
```

```
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + (I/2)/(b*n), 3/2 + (I/
2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/((I + b*n)*x)
```

Maple [F]

$$\int \frac{\csc \left(a+b\ln \left(c\,x^{n}\right)\right)}{x^{2}}d x$$

```
[In] int(csc(a+b*ln(c*x^n))/x^2,x)
[Out] int(csc(a+b*ln(c*x^n))/x^2,x)
```

Fricas [F]

$$\int \frac{\csc \left(a+b\log \left(cx^{n}\right)\right)}{x^{2}}\,dx=\int \frac{\csc \left(b\log \left(cx^{n}\right)+a\right)}{x^{2}}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^2,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)/x^2, x)
```

Sympy [F]

$$\int \frac{\csc \left(a+b\log \left(cx^{n}\right)\right)}{x^{2}}\,dx=\int \frac{\csc \left(a+b\log \left(cx^{n}\right)\right)}{x^{2}}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))/x**2,x)
[Out] Integral(csc(a + b*log(c*x**n))/x**2, x)
```

Maxima [F]

$$\int \frac{\csc \left(a+b\log \left(cx^{n}\right)\right)}{x^{2}}\,dx=\int \frac{\csc \left(b\log \left(cx^{n}\right)+a\right)}{x^{2}}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^2,x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)/x^2, x)
```

Giac [F]

$$\int \frac{\csc(a+b\log(cx^n))}{x^2}\,dx = \int \frac{\csc(b\log(cx^n)+a)}{x^2}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^2,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)/x^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\csc(a+b\log(cx^n))}{x^2}\,dx = \int \frac{1}{x^2\,\sin(a+b\,\ln(c\,x^n))}\,dx$$

```
[In] int(1/(x^2*sin(a + b*log(c*x^n))),x)
[Out] int(1/(x^2*sin(a + b*log(c*x^n))), x)
```

3.294 $\int \frac{\csc(a+b\log(cx^n))}{x^3}\,dx$

Optimal result 2625
Rubi [A] (verified) 2625
Mathematica [A] (verified) 2626
Maple [F] 2627
Fricas [F] 2627
Sympy [F] 2627
Maxima [F] 2627
Giac [F] 2628
Mupad [F(-1)] 2628

Optimal result

Integrand size = 15, antiderivative size = 85

$$\int \frac{\csc(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2i+bn)x^2}$$

```
[Out] -2*exp(I*a)*(c*x^n)^(I*b)*hypergeom([1, 1/2+I/b/n],[3/2+I/b/n],exp(2*I*a)*(
c*x^n)^(2*I*b))/(2*I+b*n)/x^2
```

Rubi [A] (verified)

Time = 0.08 (sec), antiderivative size = 85, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4606, 4602, 371}

$$\int \frac{\csc(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{x^2(bn+2i)}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]/x^3,x]
```

```
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 + (2*I)/(b*n))/2, (3 + (2
*I)/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2*I + b*n)*x^2)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{(cx^n)^{2/n}\,\text{Subst}\left(\int x^{-1-\frac{2}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{nx^2}\\ &= -\frac{\left(2ie^{ia}(cx^n)^{2/n}\right)\text{Subst}\left(\int\frac{x^{-1+ib-\frac{2}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{nx^2}\\ &= -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1+\frac{2i}{bn}\right),\frac{1}{2}\left(3+\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2i+bn)x^2}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.79 (sec) , antiderivative size = 78, normalized size of antiderivative = 0.92

$$\int\frac{\csc(a+b\log(cx^n))}{x^3}\,dx = -\frac{2e^{ia}(cx^n)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}+\frac{i}{bn},\frac{3}{2}+\frac{i}{bn},e^{2i(a+b\log(cx^n))}\right)}{(2i+bn)x^2}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]/x^3,x]
[Out] (-2*E^(I*a)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 + I/(b*n), 3/2 + I/(b*n)
, E^((2*I)*(a + b*Log[c*x^n]))])/((2*I + b*n)*x^2)
```

Maple [F]

$$\int \frac{\csc\left(a+b\ln\left(c\,x^{n}\right)\right)}{x^{3}}dx$$

```
[In] int(csc(a+b*ln(c*x^n))/x^3,x)
[Out] int(csc(a+b*ln(c*x^n))/x^3,x)
```

Fricas [F]

$$\int \frac{\csc\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\csc\left(b\log\left(cx^{n}\right)+a\right)}{x^{3}}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^3,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)/x^3, x)
```

Sympy [F]

$$\int \frac{\csc\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\csc\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))/x**3,x)
[Out] Integral(csc(a + b*log(c*x**n))/x**3, x)
```

Maxima [F]

$$\int \frac{\csc\left(a+b\log\left(cx^{n}\right)\right)}{x^{3}}\,dx = \int \frac{\csc\left(b\log\left(cx^{n}\right)+a\right)}{x^{3}}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^3,x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)/x^3, x)
```

Giac [F]

$$\int \frac{\csc(a+b\log(cx^n))}{x^3}\,dx = \int \frac{\csc(b\log(cx^n)+a)}{x^3}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))/x^3,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)/x^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\csc(a+b\log(cx^n))}{x^3}\,dx = \int \frac{1}{x^3\,\sin(a+b\,\ln(c\,x^n))}\,dx$$

```
[In] int(1/(x^3*sin(a + b*log(c*x^n))),x)
[Out] int(1/(x^3*sin(a + b*log(c*x^n))), x)
```

3.295 $\int \csc^2(a+b\log(cx^n))\,dx$

Optimal result 2629
Rubi [A] (verified) 2629
Mathematica [A] (verified) 2630
Maple [F] 2631
Fricas [F] 2631
Sympy [F] 2631
Maxima [F] 2631
Giac [F] 2632
Mupad [F(-1)] 2632

Optimal result

Integrand size = 13, antiderivative size = 84

$$\int \csc^2(a+b\log(cx^n))\,dx = -\frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}$$

```
[Out] -4*exp(2*I*a)*x*(c*x^n)^(2*I*b)*hypergeom([2, 1-1/2*I/b/n],[2-1/2*I/b/n],ex
p(2*I*a)*(c*x^n)^(2*I*b))/(1+2*I*b*n)
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4600, 4602, 371}

$$\int \csc^2(a+b\log(cx^n))\,dx = -\frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (-4*E^((2*I)*a)*x*(c*x^n)^((2*I)*b)*Hypergeometric2F1[2, (2 - I/(b*n))/2, (
4 - I/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(1 + (2*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^2(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= -\frac{\left(4e^{2ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+2ib+\frac{1}{n}}}{(1-e^{2ia}x^{2ib})^2}\,dx,x,cx^n\right)}{n}\\ &= -\frac{4e^{2ia}x(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(2,\frac{1}{2}\left(2-\frac{i}{bn}\right),\frac{1}{2}\left(4-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+2ibn}\end{aligned}$$

Mathematica [A] (verified)

Time = 3.93 (sec) , antiderivative size = 146, normalized size of antiderivative = 1.74

$$\int \csc^2(a+b\log(cx^n))\,dx = \frac{x\left(-\cot(a+b\log(cx^n)) - \frac{e^{2ia}(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bn},2-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)}{-i+2bn} - i\,\text{Hypergeometric2F1}\left(1,\right.\right.}{bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^2,x]
```

```
[Out] (x*(-Cot[a + b*Log[c*x^n]] - (E^((2*I)*a)*(c*x^n)^((2*I)*b)*Hypergeometric2
F1[1, 1 - (I/2)/(b*n), 2 - (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))])/(-I
+ 2*b*n) - I*Hypergeometric2F1[1, (-1/2*I)/(b*n), 1 - (I/2)/(b*n), E^((2*I)
*(a + b*Log[c*x^n]))]))/(b*n)
```

Maple [F]

$$\int \csc \left(a+b\ln \left(c\,x^{n}\right)\right)^{2}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^2,x)
[Out] int(csc(a+b*ln(c*x^n))^2,x)
```

Fricas [F]

$$\int \csc^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int \csc\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^2,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)^2, x)
```

Sympy [F]

$$\int \csc^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int \csc^2\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**2,x)
[Out] Integral(csc(a + b*log(c*x**n))**2, x)
```

Maxima [F]

$$\int \csc^2\left(a+b\log\left(cx^n\right)\right)\,dx=\int \csc\left(b\log\left(cx^n\right)+a\right)^2\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^2,x, algorithm="maxima")
[Out] (2*x*cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + 2*x*cos(2*b*log(c))*sin(2*b*
log(x^n) + 2*a) - (2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 2*b^
2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) - (b^2*cos(2*b*log(c))^2 + b^
2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 - (b^2*cos(2*b*log(c))^2
 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 - b^2*n^2)*integrat
e((cos(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))*sin(b*log(x^n) + a))/(
2*b^2*n^2*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^2*n^2*sin(b*log(c))*sin(b
*log(x^n) + a) + (b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2*cos(b*log(
x^n) + a)^2 + (b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2*sin(b*log(x^n
```

```
) + a)^2 + b^2*n^2), x) + (2*b^2*n^2*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a
) - 2*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) - (b^2*cos(2*b*log(c)
)^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*log(x^n) + 2*a)^2 - (b^2*cos(2*b*l
og(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*sin(2*b*log(x^n) + 2*a)^2 - b^2*n^2)*
integrate(-(cos(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))*sin(b*log(x^n
) + a))/(2*b^2*n^2*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^2*n^2*sin(b*log(
c))*sin(b*log(x^n) + a) - (b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2*c
os(b*log(x^n) + a)^2 - (b^2*cos(b*log(c))^2 + b^2*sin(b*log(c))^2)*n^2*sin(
b*log(x^n) + a)^2 - b^2*n^2), x))/(2*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) +
 2*a) - (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*
a)^2 - 2*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) - (b*cos(2*b*log(c))^2
 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 - b*n)
```

Giac [F]

$$\int \csc^2(a+b\log(cx^n))\,dx = \int \csc(b\log(cx^n)+a)^2\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^2,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^2(a+b\log(cx^n))\,dx = \int \frac{1}{\sin(a+b\,\ln(c\,x^n))^2}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^2,x)
[Out] int(1/sin(a + b*log(c*x^n))^2, x)
```

3.296 $\int \frac{\csc^2(a+b\log(cx^n))}{x} dx$

Optimal result . . . 2633
Rubi [A] (verified) . . . 2633
Mathematica [A] (verified) . . . 2634
Maple [A] (verified) . . . 2634
Fricas [A] (verification not implemented) . . . 2635
Sympy [F] . . . 2635
Maxima [B] (verification not implemented) . . . 2635
Giac [F] . . . 2636
Mupad [B] (verification not implemented) . . . 2636

Optimal result

Integrand size = 17, antiderivative size = 19

$$\int \frac{\csc^2(a+b\log(cx^n))}{x} dx = -\frac{\cot(a+b\log(cx^n))}{bn}$$

```
[Out] -cot(a+b*ln(c*x^n))/b/n
```

Rubi [A] (verified)

Time = 0.03 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3852, 8}

$$\int \frac{\csc^2(a+b\log(cx^n))}{x} dx = -\frac{\cot(a+b\log(cx^n))}{bn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^2/x,x]
[Out] -(Cot[a + b*Log[c*x^n]]/(b*n))
```

Rule 8

```
Int[a_, x_Symbol] :> Simp[a*x, x] /; FreeQ[a, x]
```

Rule 3852

```
Int[csc[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
ndIntegrand[(1 + x^2)^(n/2 - 1), x], x], x, Cot[c + d*x]], x] /; FreeQ[{c,
d}, x] && IGtQ[n/2, 0]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \csc^2(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{\text{Subst}\left(\int 1\,dx, x, \cot\left(a+b\log\left(cx^n\right)\right)\right)}{bn} \\
&= -\frac{\cot\left(a+b\log\left(cx^n\right)\right)}{bn}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 0.08 (sec) , antiderivative size = 19, normalized size of antiderivative = 1.00

$$
\int \frac{\csc^2\left(a+b\log\left(cx^n\right)\right)}{x}\,dx = -\frac{\cot\left(a+b\log\left(cx^n\right)\right)}{bn}
$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^2/x,x]
[Out] -(Cot[a + b*Log[c*x^n]]/(b*n))
```

Maple [A] (verified)

Time = 1.03 (sec) , antiderivative size = 20, normalized size of antiderivative = 1.05

method	result
derivativedivides	$-\frac{\cot(a+b\ln(c\,x^n))}{bn}$
default	$-\frac{\cot(a+b\ln(c\,x^n))}{bn}$
parallelrisch	$\frac{-\cot\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)+\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)}{2bn}$
risch	$-\frac{2i}{bn\left(\left(x^n\right)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}\mathrm{e}^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}\mathrm{e}^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}\mathrm{e}^{2ia}-1\right)}$

```
[In] int(csc(a+b*ln(c*x^n))^2/x,x,method=_RETURNVERBOSE)
[Out] -cot(a+b*ln(c*x^n))/b/n
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 34, normalized size of antiderivative = 1.79

$$\int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx = -\frac{\cos(bn\log(x)+b\log(c)+a)}{bn\sin(bn\log(x)+b\log(c)+a)}$$

```
[In] integrate(csc(a+b*log(c*x^n))^2/x,x, algorithm="fricas")
[Out] -cos(b*n*log(x) + b*log(c) + a)/(b*n*sin(b*n*log(x) + b*log(c) + a))
```

Sympy [F]

$$\int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**2/x,x)
[Out] Integral(csc(a + b*log(c*x**n))**2/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 168 vs. 2(19) = 38.

Time = 0.23 (sec) , antiderivative size = 168, normalized size of antiderivative = 8.84

$$\int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx$$
$$= \frac{2(\cos(2b\log(x^n)+2a)\sin(2b\,\mathrm{lo}}{2bn\cos(2b\log(c))\cos(2b\log(x^n)+2a)-\left(b\cos(2b\log(c))^2+b\sin(2b\log(c))^2\right)n\cos(2b\log(x^n)+2}$$

```
[In] integrate(csc(a+b*log(c*x^n))^2/x,x, algorithm="maxima")
[Out] 2*(cos(2*b*log(x^n) + 2*a)*sin(2*b*log(c)) + cos(2*b*log(c))*sin(2*b*log(x^
n) + 2*a))/(2*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - (b*cos(2*b*log(
c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2*a)^2 - 2*b*n*sin(2*b*lo
g(c))*sin(2*b*log(x^n) + 2*a) - (b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)
*n*sin(2*b*log(x^n) + 2*a)^2 - b*n)
```

Giac [F]

$$\int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc(b\log(cx^n)+a)^2}{x}\,dx$$

[In] integrate(csc(a+b*log(c*x^n))^2/x,x, algorithm="giac")

[Out] integrate(csc(b*log(c*x^n) + a)^2/x, x)

Mupad [B] (verification not implemented)

Time = 29.77 (sec) , antiderivative size = 29, normalized size of antiderivative = 1.53

$$\int \frac{\csc^2(a+b\log(cx^n))}{x}\,dx = -\frac{2i}{b\,n\,\left(e^{a\,2i}\,(c\,x^n)^{b\,2i}-1\right)}$$

[In] int(1/(x*sin(a + b*log(c*x^n))^2),x)

[Out] -2i/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1))

3.297 $\int \csc^3(a+b\log(cx^n))\,dx$

Optimal result 2637
Rubi [A] (verified) 2637
Mathematica [A] (verified) 2638
Maple [F] 2639
Fricas [F] 2639
Sympy [F] 2639
Maxima [F] 2639
Giac [F] 2642
Mupad [F(-1)] 2642

Optimal result

Integrand size = 13, antiderivative size = 84

$$\int \csc^3(a+b\log(cx^n))\,dx = -\frac{8e^{3ia}x(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{i-3bn}$$

```
[Out] -8*exp(3*I*a)*x*(c*x^n)^(3*I*b)*hypergeom([3, 3/2-1/2*I/b/n],[5/2-1/2*I/b/n
],exp(2*I*a)*(c*x^n)^(2*I*b))/(I-3*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4600, 4602, 371}

$$\int \csc^3(a+b\log(cx^n))\,dx = -\frac{8e^{3ia}x(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{-3bn+i}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^3,x]
```

```
[Out] (-8*E^((3*I)*a)*x*(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 - I/(b*n))/2, (
5 - I/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(I - 3*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^3(a+b\log(x))\,dx,x,cx^n\right)}{n}\\ &= \frac{\left(8ie^{3ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^3}\,dx,x,cx^n\right)}{n}\\ &= -\frac{8e^{3ia}x(cx^n)^{3ib}\,\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{i-3bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 4.78 (sec) , antiderivative size = 117, normalized size of antiderivative = 1.39

$$\int \csc^3\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{x\Big(\left(1+bn\cot\left(a+b\log\left(cx^n\right)\right)\right)\csc\left(a+b\log\left(cx^n\right)\right)+2e^{ia}(i+bn)\left(cx^n\right)^{ib}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}-\frac{i}{2bn}\right.}{2b^2n^2}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^3,x]
```

```
[Out] -1/2*(x*((1 + b*n*Cot[a + b*Log[c*x^n]])*Csc[a + b*Log[c*x^n]] + 2*E^(I*a)*
(I + b*n)*(c*x^n)^(I*b)*Hypergeometric2F1[1, 1/2 - (I/2)/(b*n), 3/2 - (I/2)
/(b*n), E^((2*I)*(a + b*Log[c*x^n]))]))/(b^2*n^2)
```

Maple [F]

$$\int \csc\left(a+b\ln\left(c\,x^{n}\right)\right)^{3}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^3,x)
[Out] int(csc(a+b*ln(c*x^n))^3,x)
```

Fricas [F]

$$\int \csc^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^3,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)^3, x)
```

Sympy [F]

$$\int \csc^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc^{3}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**3,x)
[Out] Integral(csc(a + b*log(c*x**n))**3, x)
```

Maxima [F]

$$\int \csc^{3}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc\left(b\log\left(cx^{n}\right)+a\right)^{3}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^3,x, algorithm="maxima")
[Out] -((b*n*cos(b*log(c)) - sin(b*log(c)))*x*cos(b*log(x^n) + a) - (b*n*sin(b*lo
g(c)) + cos(b*log(c)))*x*sin(b*log(x^n) + a) + (((b*cos(4*b*log(c))*cos(3*b
*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n - cos(3*b*log(c))*sin(4*b*l
og(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) + ((b*c
os(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + cos(b*l
og(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) +
a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)
))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*x
*sin(3*b*log(x^n) + 3*a) + ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*lo
```

g(c))*sin(b*log(c)))*n - cos(4*b*log(c))*cos(b*log(c)) - sin(4*b*log(c))*si
n(b*log(c)))*x*sin(b*log(x^n) + a))*cos(4*b*log(x^n) + 4*a) - (2*((b*cos(3*
b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*
log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^
n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(2
*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*sin(2*b*l
og(c)))*x*sin(2*b*log(x^n) + 2*a) - (b*n*cos(3*b*log(c)) + sin(3*b*log(c)))
*x)*cos(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(
2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(
c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) + ((b*cos(b*log(c))*sin(2*b*log(c)
) - b*cos(2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - si
n(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a)
 + 2*(b^6*n^6 + b^4*n^4 + ((b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*
n^6 + (b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n^4)*cos(4*b*log(x^n)
 + 4*a)^2 + 4*((b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6 + (b^4*c
os(2*b*log(c))^2 + b^4*sin(2*b*log(c))^2)*n^4)*cos(2*b*log(x^n) + 2*a)^2 +
((b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6 + (b^4*cos(4*b*log(c))
^2 + b^4*sin(4*b*log(c))^2)*n^4)*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^6*cos(2*
b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6 + (b^4*cos(2*b*log(c))^2 + b^4*sin
(2*b*log(c))^2)*n^4)*sin(2*b*log(x^n) + 2*a)^2 + 2*(b^6*n^6*cos(4*b*log(c))
 + b^4*n^4*cos(4*b*log(c)) - 2*((b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*
sin(4*b*log(c))*sin(2*b*log(c)))*n^6 + (b^4*cos(4*b*log(c))*cos(2*b*log(c))
 + b^4*sin(4*b*log(c))*sin(2*b*log(c)))*n^4)*cos(2*b*log(x^n) + 2*a) - 2*((
b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*
n^6 + (b^4*cos(2*b*log(c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*lo
g(c)))*n^4)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 4*(b^6*n^6*c
os(2*b*log(c)) + b^4*n^4*cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(b^6*
n^6*sin(4*b*log(c)) + b^4*n^4*sin(4*b*log(c)) - 2*((b^6*cos(2*b*log(c))*sin
(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6 + (b^4*cos(2*b*log(
c))*sin(4*b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c)))*n^4)*cos(2*b*log
(x^n) + 2*a) + 2*((b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c)
)*sin(2*b*log(c)))*n^6 + (b^4*cos(4*b*log(c))*cos(2*b*log(c)) + b^4*sin(4*b
*log(c))*sin(2*b*log(c)))*n^4)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) +
4*a) + 4*(b^6*n^6*sin(2*b*log(c)) + b^4*n^4*sin(2*b*log(c)))*sin(2*b*log(x^
n) + 2*a))*integrate(1/4*(cos(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))
*sin(b*log(x^n) + a))/(2*b^4*n^4*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^4*
n^4*sin(b*log(c))*sin(b*log(x^n) + a) + b^4*n^4 + (b^4*cos(b*log(c))^2 + b^
4*sin(b*log(c))^2)*n^4*cos(b*log(x^n) + a)^2 + (b^4*cos(b*log(c))^2 + b^4*s
in(b*log(c))^2)*n^4*sin(b*log(x^n) + a)^2), x) + 2*(b^6*n^6 + b^4*n^4 + ((b
^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6 + (b^4*cos(4*b*log(c))^2
+ b^4*sin(4*b*log(c))^2)*n^4)*cos(4*b*log(x^n) + 4*a)^2 + 4*((b^6*cos(2*b*l
og(c))^2 + b^6*sin(2*b*log(c))^2)*n^6 + (b^4*cos(2*b*log(c))^2 + b^4*sin(2*
b*log(c))^2)*n^4)*cos(2*b*log(x^n) + 2*a)^2 + ((b^6*cos(4*b*log(c))^2 + b^6
*sin(4*b*log(c))^2)*n^6 + (b^4*cos(4*b*log(c))^2 + b^4*sin(4*b*log(c))^2)*n
^4)*sin(4*b*log(x^n) + 4*a)^2 + 4*((b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log

```
(c))^2)*n^6 + (b^4*cos(2*b*log(c))^2 + b^4*sin(2*b*log(c))^2)*n^4)*sin(2*b*
log(x^n) + 2*a)^2 + 2*(b^6*n^6*cos(4*b*log(c)) + b^4*n^4*cos(4*b*log(c)) -
2*((b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c
)))*n^6 + (b^4*cos(4*b*log(c))*cos(2*b*log(c)) + b^4*sin(4*b*log(c))*sin(2*
b*log(c)))*n^4)*cos(2*b*log(x^n) + 2*a) - 2*((b^6*cos(2*b*log(c))*sin(4*b*l
og(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6 + (b^4*cos(2*b*log(c))*si
n(4*b*log(c)) - b^4*cos(4*b*log(c))*sin(2*b*log(c)))*n^4)*sin(2*b*log(x^n)
+ 2*a))*cos(4*b*log(x^n) + 4*a) - 4*(b^6*n^6*cos(2*b*log(c)) + b^4*n^4*cos(
2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 2*(b^6*n^6*sin(4*b*log(c)) + b^4*n^4
*sin(4*b*log(c)) - 2*((b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*lo
g(c))*sin(2*b*log(c)))*n^6 + (b^4*cos(2*b*log(c))*sin(4*b*log(c)) - b^4*cos
(4*b*log(c))*sin(2*b*log(c)))*n^4)*cos(2*b*log(x^n) + 2*a) + 2*((b^6*cos(4*
b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6 + (b^4
*cos(4*b*log(c))*cos(2*b*log(c)) + b^4*sin(4*b*log(c))*sin(2*b*log(c)))*n^4
)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) + 4*(b^6*n^6*sin(2*b*log
(c)) + b^4*n^4*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*integrate(-1/4*(co
s(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))*sin(b*log(x^n) + a))/(2*b^4
*n^4*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^4*n^4*sin(b*log(c))*sin(b*log(
x^n) + a) - b^4*n^4 - (b^4*cos(b*log(c))^2 + b^4*sin(b*log(c))^2)*n^4*cos(b
*log(x^n) + a)^2 - (b^4*cos(b*log(c))^2 + b^4*sin(b*log(c))^2)*n^4*sin(b*lo
g(x^n) + a)^2), x) - (((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c
))*sin(3*b*log(c)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*s
in(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) + ((b*cos(b*log(c))*sin(4*b*log(c
)) - b*cos(4*b*log(c))*sin(b*log(c)))*n - cos(4*b*log(c))*cos(b*log(c)) - s
in(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) - ((b*cos(4*b*log(c))*c
os(3*b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n - cos(3*b*log(c))*sin
(4*b*log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*x*sin(3*b*log(x^n) + 3*a) -
 ((b*cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + c
os(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*sin(b*log(x
^n) + a))*sin(4*b*log(x^n) + 4*a) + (2*((b*cos(2*b*log(c))*sin(3*b*log(c))
- b*cos(3*b*log(c))*sin(2*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*log(c)) -
sin(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - 2*((b*cos(3*b*
log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*lo
g(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*sin(2*b*log(x^n)
 + 2*a) - (b*n*sin(3*b*log(c)) - cos(3*b*log(c)))*x)*sin(3*b*log(x^n) + 3*a
) + 2*(((b*cos(b*log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))
*n - cos(2*b*log(c))*cos(b*log(c)) - sin(2*b*log(c))*sin(b*log(c)))*x*cos(b
*log(x^n) + a) - ((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(
b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)
))*x*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a))/(4*b^2*n^2*cos(2*b*log(c
))*cos(2*b*log(x^n) + 2*a) - 4*b^2*n^2*sin(2*b*log(c))*sin(2*b*log(x^n) + 2
*a) - (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*cos(4*b*log(x^n)
+ 4*a)^2 - 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^2*cos(2*b*lo
g(x^n) + 2*a)^2 - (b^2*cos(4*b*log(c))^2 + b^2*sin(4*b*log(c))^2)*n^2*sin(4
*b*log(x^n) + 4*a)^2 - 4*(b^2*cos(2*b*log(c))^2 + b^2*sin(2*b*log(c))^2)*n^
```

```
2*sin(2*b*log(x^n) + 2*a)^2 - b^2*n^2 - 2*(b^2*n^2*cos(4*b*log(c)) - 2*(b^2
*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2
*cos(2*b*log(x^n) + 2*a) - 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos
(4*b*log(c))*sin(2*b*log(c)))*n^2*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n)
 + 4*a) + 2*(b^2*n^2*sin(4*b*log(c)) - 2*(b^2*cos(2*b*log(c))*sin(4*b*log(c
)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2*cos(2*b*log(x^n) + 2*a) + 2*(
b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*
n^2*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int \csc^3(a + b\log(cx^n))\,dx = \int \csc(b\log(cx^n) + a)^3\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^3,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^3(a + b\log(cx^n))\,dx = \int \frac{1}{\sin(a + b\ln(c\,x^n))^3}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^3,x)
[Out] int(1/sin(a + b*log(c*x^n))^3, x)
```

3.298 $\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx$

Optimal result 2643
Rubi [A] (verified) 2643
Mathematica [A] (verified) 2644
Maple [A] (verified) 2644
Fricas [B] (verification not implemented) 2645
Sympy [F] 2645
Maxima [B] (verification not implemented) 2646
Giac [F] 2647
Mupad [B] (verification not implemented) 2648

Optimal result

Integrand size = 17, antiderivative size = 55

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = -\frac{\operatorname{arctanh}(\cos(a+b\log(cx^n)))}{2bn} - \frac{\cot(a+b\log(cx^n))\csc(a+b\log(cx^n))}{2bn}$$

```
[Out] -1/2*arctanh(cos(a+b*ln(c*x^n)))/b/n-1/2*cot(a+b*ln(c*x^n))*csc(a+b*ln(c*x^
n))/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 55, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.118, Rules used = {3853, 3855}

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = -\frac{\operatorname{arctanh}(\cos(a+b\log(cx^n)))}{2bn} - \frac{\cot(a+b\log(cx^n))\csc(a+b\log(cx^n))}{2bn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] -1/2*ArcTanh[Cos[a + b*Log[c*x^n]]]/(b*n) - (Cot[a + b*Log[c*x^n]]*Csc[a +
b*Log[c*x^n]])/(2*b*n)
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
```

```
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3855

```
Int[csc[(c_.) + (d_.)*(x_)], x_Symbol] :> Simp[-ArcTanh[Cos[c + d*x]]/d, x]
 /; FreeQ[{c, d}, x]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \csc^3(a+bx)\,dx, x, \log(cx^n)\right)}{n}\\ &= -\frac{\cot(a+b\log(cx^n))\csc(a+b\log(cx^n))}{2bn} + \frac{\text{Subst}\left(\int \csc(a+bx)\,dx, x, \log(cx^n)\right)}{2n}\\ &= -\frac{\text{arctanh}(\cos(a+b\log(cx^n)))}{2bn} - \frac{\cot(a+b\log(cx^n))\csc(a+b\log(cx^n))}{2bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.95

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = -\frac{\csc^2\left(\frac{1}{2}(a+b\log(cx^n))\right)}{8bn} - \frac{\log\left(\cos\left(\frac{1}{2}(a+b\log(cx^n))\right)\right)}{2bn} + \frac{\log\left(\sin\left(\frac{1}{2}(a+b\log(cx^n))\right)\right)}{2bn} + \frac{\sec^2\left(\frac{1}{2}(a+b\log(cx^n))\right)}{8bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^3/x,x]
```

```
[Out] -1/8*Csc[(a + b*Log[c*x^n])/2]^2/(b*n) - Log[Cos[(a + b*Log[c*x^n])/2]]/(2*
b*n) + Log[Sin[(a + b*Log[c*x^n])/2]]/(2*b*n) + Sec[(a + b*Log[c*x^n])/2]^2
/(8*b*n)
```

Maple [A] (verified)

Time = 1.91 (sec) , antiderivative size = 61, normalized size of antiderivative = 1.11

method	result
derivativedivides	$\frac{-\frac{\csc(a+b\ln(c\,x^n))\cot(a+b\ln(c\,x^n))}{2}+\frac{\ln(\csc(a+b\ln(c\,x^n))-\cot(a+b\ln(c\,x^n)))}{2}}{nb}$
default	$\frac{-\frac{\csc(a+b\ln(c\,x^n))\cot(a+b\ln(c\,x^n))}{2}+\frac{\ln(\csc(a+b\ln(c\,x^n))-\cot(a+b\ln(c\,x^n)))}{2}}{nb}$
parallelrisch	$\frac{-\cot\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^2+\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^2+4\ln\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)\right)}{8bn}$
risch	$\frac{c^{ib}(x^n)^{ib}\left(c^{2ib}(x^n)^{2ib}\mathrm{e}^{-\frac{3b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{2}}\mathrm{e}^{\frac{3b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{\frac{3b\pi\ \mathrm{csgn}(ic\,x^n)^3}{2}}\mathrm{e}^{-\frac{3b\pi\ \mathrm{csgn}(ic\,x^n)^2\,\mathrm{c}}{2}}\right.}{bn\left((x^n)^{2ib}c^{2ib}\mathrm{e}^{-b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}\mathrm{e}^{b\pi\ \mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic}\right.}$

```
[In] int(csc(a+b*ln(c*x^n))^3/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n/b*(-1/2*csc(a+b*ln(c*x^n))*cot(a+b*ln(c*x^n))+1/2*ln(csc(a+b*ln(c*x^n))
-cot(a+b*ln(c*x^n))))
```

Fricas [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 110 vs. $2(51) = 102$.

Time = 0.26 (sec) , antiderivative size = 110, normalized size of antiderivative = 2.00

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = -\frac{\left(\cos(bn\log(x)+b\log(c)+a)^2-1\right)\log\left(\frac{1}{2}\cos(bn\log(x)+b\log(c)+a)+\frac{1}{2}\right)-\left(\cos(bn\log(x)+b\log\right.}{4\left(bn\cos(bn\log(x)+b\log\right.}$$

```
[In] integrate(csc(a+b*log(c*x^n))^3/x,x, algorithm="fricas")
```

```
[Out] -1/4*((cos(b*n*log(x) + b*log(c) + a)^2 - 1)*log(1/2*cos(b*n*log(x) + b*log
(c) + a) + 1/2) - (cos(b*n*log(x) + b*log(c) + a)^2 - 1)*log(-1/2*cos(b*n*l
og(x) + b*log(c) + a) + 1/2) - 2*cos(b*n*log(x) + b*log(c) + a))/(b*n*cos(b
*n*log(x) + b*log(c) + a)^2 - b*n)
```

Sympy [F]

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**3/x,x)
```

```
[Out] Integral(csc(a + b*log(c*x**n))**3/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 2168 vs. 2(51) = 102.

Time = 0.30 (sec) , antiderivative size = 2168, normalized size of antiderivative = 39.42

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = \text{Too large to display}$$

```
[In] integrate(csc(a+b*log(c*x^n))^3/x,x, algorithm="maxima")
```

```
[Out] 1/4*(4*((cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))
*cos(3*b*log(x^n) + 3*a) + (cos(4*b*log(c))*cos(b*log(c)) + sin(4*b*log(c))
*sin(b*log(c)))*cos(b*log(x^n) + a) + (cos(3*b*log(c))*sin(4*b*log(c)) - co
s(4*b*log(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) + (cos(b*log(c))*sin
(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(4*b*
log(x^n) + 4*a) - 4*(2*(cos(3*b*log(c))*cos(2*b*log(c)) + sin(3*b*log(c))*s
in(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(3*b*log(c)
) - cos(3*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(3*b*log(
c)))*cos(3*b*log(x^n) + 3*a) - 8*((cos(2*b*log(c))*cos(b*log(c)) + sin(2*b*
log(c))*sin(b*log(c)))*cos(b*log(x^n) + a) + (cos(b*log(c))*sin(2*b*log(c))
 - cos(2*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2
*a) + 4*cos(b*log(c))*cos(b*log(x^n) + a) - ((cos(4*b*log(c))^2 + sin(4*b*l
og(c))^2)*cos(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c)
)^2)*cos(2*b*log(x^n) + 2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*si
n(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b
*log(x^n) + 2*a)^2 - 2*(2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c)
)*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log
(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(4*b*l
og(c)))*cos(4*b*log(x^n) + 4*a) - 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a)
 + 2*(2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))
*cos(2*b*log(x^n) + 2*a) - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log
(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4*b*lo
g(x^n) + 4*a) + 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)*log((cos(a)^
2 + sin(a)^2)*cos(b*log(c))^2 + (cos(a)^2 + sin(a)^2)*sin(b*log(c))^2 + 2*(
cos(b*log(c))*cos(a) - sin(b*log(c))*sin(a))*cos(b*log(x^n)) + cos(b*log(x^
n))^2 - 2*(cos(a)*sin(b*log(c)) + cos(b*log(c))*sin(a))*sin(b*log(x^n)) + s
in(b*log(x^n))^2) + ((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*cos(4*b*log(x^
n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2*b*log(x^n) +
2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(x^n) + 4*a)^2
+ 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n) + 2*a)^2 - 2*(
2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2
*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*s
in(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(4*b*log(c)))*cos(4*b*log(x^n)
 + 4*a) - 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 2*(2*(cos(2*b*log(c))
*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a)
```

```
 - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*si
n(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4*b*log(x^n) + 4*a) + 4*sin(2*
b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)*log((cos(a)^2 + sin(a)^2)*cos(b*log(
c))^2 + (cos(a)^2 + sin(a)^2)*sin(b*log(c))^2 - 2*(cos(b*log(c))*cos(a) - s
in(b*log(c))*sin(a))*cos(b*log(x^n)) + cos(b*log(x^n))^2 + 2*(cos(a)*sin(b*
log(c)) + cos(b*log(c))*sin(a))*sin(b*log(x^n)) + sin(b*log(x^n))^2) - 4*((
cos(3*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(3*b*log(c)))*cos(3*b*
log(x^n) + 3*a) + (cos(b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*lo
g(c)))*cos(b*log(x^n) + a) - (cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log
(c))*sin(3*b*log(c)))*sin(3*b*log(x^n) + 3*a) - (cos(4*b*log(c))*cos(b*log(
c)) + sin(4*b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(4*b*log(x^n)
+ 4*a) + 4*(2*(cos(2*b*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*lo
g(c)))*cos(2*b*log(x^n) + 2*a) - 2*(cos(3*b*log(c))*cos(2*b*log(c)) + sin(3
*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(3*b*log(c)))*sin(
3*b*log(x^n) + 3*a) + 8*((cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*s
in(b*log(c)))*cos(b*log(x^n) + a) - (cos(2*b*log(c))*cos(b*log(c)) + sin(2*
b*log(c))*sin(b*log(c)))*sin(b*log(x^n) + a))*sin(2*b*log(x^n) + 2*a) - 4*s
in(b*log(c))*sin(b*log(x^n) + a))/((b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))
^2)*n*cos(4*b*log(x^n) + 4*a)^2 - 4*b*n*cos(2*b*log(c))*cos(2*b*log(x^n) +
2*a) + 4*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*cos(2*b*log(x^n) + 2
*a)^2 + (b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*sin(4*b*log(x^n) + 4*
a)^2 + 4*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 4*(b*cos(2*b*log(c))
^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 + b*n + 2*(b*n*cos(4*
b*log(c)) - 2*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*
b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - 2*(b*cos(2*b*log(c))*sin(4*b*log(c))
 - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(4*b*lo
g(x^n) + 4*a) + 2*(2*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))
*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - b*n*sin(4*b*log(c)) - 2*(b*co
s(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*
b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a))
```

Giac [F]

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx=\int \frac{\csc(b\log(cx^n)+a)^3}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^3/x,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^3/x, x)
```

Mupad [B] (verification not implemented)

Time = 32.07 (sec) , antiderivative size = 177, normalized size of antiderivative = 3.22

$$\int \frac{\csc^3(a+b\log(cx^n))}{x}\,dx = -\frac{\ln\left(-\frac{1\mathrm{i}}{x}-\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}\,1\mathrm{i}}{x}\right)}{2\,b\,n}+\frac{\ln\left(\frac{1\mathrm{i}}{x}-\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}\,1\mathrm{i}}{x}\right)}{2\,b\,n}+\frac{2\,\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{b\,n\,\left(1+\mathrm{e}^{a\,4\mathrm{i}}\,(c\,x^n)^{b\,4\mathrm{i}}-2\,\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}\right)}+\frac{\mathrm{e}^{a\,1\mathrm{i}}\,(c\,x^n)^{b\,1\mathrm{i}}}{b\,n\,\left(\mathrm{e}^{a\,2\mathrm{i}}\,(c\,x^n)^{b\,2\mathrm{i}}-1\right)}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))^3),x)
```

```
[Out] log(1i/x - (exp(a*1i)*(c*x^n)^(b*1i)*1i)/x)/(2*b*n) - log(- 1i/x - (exp(a*1
i)*(c*x^n)^(b*1i)*1i)/x)/(2*b*n) + (2*exp(a*1i)*(c*x^n)^(b*1i))/(b*n*(exp(a
*4i)*(c*x^n)^(b*4i) - 2*exp(a*2i)*(c*x^n)^(b*2i) + 1)) + (exp(a*1i)*(c*x^n)
^(b*1i))/(b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1))
```

3.299 $\int \csc^4(a+b\log(cx^n))\,dx$

Optimal result 2649
Rubi [A] (verified) 2649
Mathematica [B] (verified) 2650
Maple [F] 2651
Fricas [F] 2651
Sympy [F] 2651
Maxima [F] 2651
Giac [F] 2656
Mupad [F(-1)] 2656

Optimal result

Integrand size = 13, antiderivative size = 84

$$\int \csc^4(a+b\log(cx^n))\,dx = \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}$$

```
[Out] 16*exp(4*I*a)*x*(c*x^n)^(4*I*b)*hypergeom([4, 2-1/2*I/b/n],[3-1/2*I/b/n],ex
p(2*I*a)*(c*x^n)^(2*I*b))/(1+4*I*b*n)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 84, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4600, 4602, 371}

$$\int \csc^4(a+b\log(cx^n))\,dx = \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (16*E^((4*I)*a)*x*(c*x^n)^((4*I)*b)*Hypergeometric2F1[4, (4 - I/(b*n))/2, (
6 - I/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(1 + (4*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^4(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(16e^{4ia}x(cx^n)^{-1/n}\right)\text{Subst}\left(\int\frac{x^{-1+4ib+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^4}\,dx,x,cx^n\right)}{n}\\
&= \frac{16e^{4ia}x(cx^n)^{4ib}\,\text{Hypergeometric2F1}\left(4,\frac{1}{2}\left(4-\frac{i}{bn}\right),\frac{1}{2}\left(6-\frac{i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{1+4ibn}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 221 vs. 2(84) = 168.

Time = 11.04 (sec) , antiderivative size = 221, normalized size of antiderivative = 2.63

$$\int\csc^4(a+b\log(cx^n))\,dx$$

$$= \frac{x\left(-4e^{2ia}(i+2bn)(cx^n)^{2ib}\,\text{Hypergeometric2F1}\left(1,1-\frac{i}{2bn},2-\frac{i}{2bn},e^{2i(a+b\log(cx^n))}\right)-4i(1+4b^2n^2)\,\text{Hyperg}\right.}{}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^4,x]
```

```
[Out] (x*(-4*E^((2*I)*a)*(I + 2*b*n)*(c*x^n)^((2*I)*b)*Hypergeometric2F1[1, 1 - (
I/2)/(b*n), 2 - (I/2)/(b*n), E^((2*I)*(a + b*Log[c*x^n]))] - (4*I)*(1 + 4*b
^2*n^2)*Hypergeometric2F1[1, (-1/2*I)/(b*n), 1 - (I/2)/(b*n), E^((2*I)*(a +
 b*Log[c*x^n]))] + Csc[a + b*Log[c*x^n]]^3*(-((1 + 12*b^2*n^2)*Cos[a + b*Lo
g[c*x^n]]) + (1 + 4*b^2*n^2)*Cos[3*(a + b*Log[c*x^n])] - 4*b*n*Sin[a + b*Lo
g[c*x^n]])))/(24*b^3*n^3)
```

Maple [F]

$$\int \csc \left(a+b\ln \left(c\,x^{n}\right)\right)^{4}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^4,x)
[Out] int(csc(a+b*ln(c*x^n))^4,x)
```

Fricas [F]

$$\int \csc^4 \left(a+b\log \left(cx^n\right)\right)\,dx=\int \csc \left(b\log \left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^4,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)^4, x)
```

Sympy [F]

$$\int \csc^4 \left(a+b\log \left(cx^n\right)\right)\,dx=\int \csc^{4}\left(a+b\log \left(cx^{n}\right)\right)dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**4,x)
[Out] Integral(csc(a + b*log(c*x**n))**4, x)
```

Maxima [F]

$$\int \csc^4 \left(a+b\log \left(cx^n\right)\right)\,dx=\int \csc \left(b\log \left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^4,x, algorithm="maxima")
[Out] 1/3*(6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x*cos(4*b*log(x^n) + 4
*a)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x*cos(2*b*log(x^n)
+ 2*a)^2 + 6*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*x*sin(4*b*log(x^
n) + 4*a)^2 + 6*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*x*sin(2*b*log
(x^n) + 2*a)^2 - (2*b*n*cos(2*b*log(c)) - sin(2*b*log(c)))*x*cos(2*b*log(x^
n) + 2*a) + (2*b*n*sin(2*b*log(c)) + cos(2*b*log(c)))*x*sin(2*b*log(x^n) +
2*a) - ((2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*l
og(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*b*log(c
)))*x*cos(4*b*log(x^n) + 4*a) + 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) -
```

```
b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(6*b*log(c))*cos(2*b*log(
c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c)
) - cos(6*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) + (2*(b*cos(
4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n + cos(6*
b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*x*sin(4*b*log(
x^n) + 4*a) - 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(c
))*sin(2*b*log(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*lo
g(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c)
)*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - (4*b^2*n^2*sin(6*b*log(c)) +
 sin(6*b*log(c)))*x)*cos(6*b*log(x^n) + 6*a) + (3*(12*(b^2*cos(2*b*log(c))*
sin(4*b*log(c)) - b^2*cos(4*b*log(c))*sin(2*b*log(c)))*n^2 - 4*(b*cos(4*b*l
og(c))*cos(2*b*log(c)) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log
(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n)
+ 2*a) - 3*(12*(b^2*cos(4*b*log(c))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*s
in(2*b*log(c)))*n^2 + 4*(b*cos(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(
c))*sin(2*b*log(c)))*n + cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*
sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - 2*(6*b^2*n^2*sin(4*b*log(c)) -
 b*n*cos(4*b*log(c)) + sin(4*b*log(c)))*x)*cos(4*b*log(x^n) + 4*a) + 18*(4*
b^8*n^8 + b^6*n^6 + (4*(b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8
+ (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*cos(6*b*log(x^n) + 6
*a)^2 + 9*(4*(b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos
(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*cos(4*b*log(x^n) + 4*a)^2 + 9*
(4*(b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c
))^2 + b^6*sin(2*b*log(c))^2)*n^6)*cos(2*b*log(x^n) + 2*a)^2 + (4*(b^8*cos(
6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*s
in(6*b*log(c))^2)*n^6)*sin(6*b*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(c)
)^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log
(c))^2)*n^6)*sin(4*b*log(x^n) + 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^8*
sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^
6)*sin(2*b*log(x^n) + 2*a)^2 - 2*(4*b^8*n^8*cos(6*b*log(c)) + b^6*n^6*cos(6
*b*log(c)) + 3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c)
)*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b
*log(c))*sin(4*b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(6*b*
log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*c
os(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*
cos(2*b*log(x^n) + 2*a) + 3*(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*c
os(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c))
- b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) - 3*(4*
(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))
*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*l
og(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(x^n) + 6*a) + 6*(4*b^8*n^
8*cos(4*b*log(c)) + b^6*n^6*cos(4*b*log(c)) - 3*(4*(b^8*cos(4*b*log(c))*cos
(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(
c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log
(x^n) + 2*a) - 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(
```

c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4
*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n)
+ 4*a) - 6*(4*b^8*n^8*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*cos(2*b*lo
g(x^n) + 2*a) + 2*(4*b^8*n^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)) + 3*
(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c
)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*
b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(2*b*log(c))*sin(6*b
*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*
sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n
) + 2*a) - 3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*
sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*l
og(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(6*b*lo
g(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos
(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*si
n(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(4*b^8*n^8*sin(4*b*log(c
)) + b^6*n^6*sin(4*b*log(c)) - 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) -
b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log
(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) +
3*(4*(b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log
(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(
2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) + 6*(4*b
^8*n^8*sin(2*b*log(c)) + b^6*n^6*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*
integrate(1/36*(cos(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))*sin(b*log
(x^n) + a))/(2*b^6*n^6*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^6*n^6*sin(b*
log(c))*sin(b*log(x^n) + a) + b^6*n^6 + (b^6*cos(b*log(c))^2 + b^6*sin(b*lo
g(c))^2)*n^6*cos(b*log(x^n) + a)^2 + (b^6*cos(b*log(c))^2 + b^6*sin(b*log(c
))^2)*n^6*sin(b*log(x^n) + a)^2), x) - 18*(4*b^8*n^8 + b^6*n^6 + (4*(b^8*co
s(6*b*log(c))^2 + b^8*sin(6*b*log(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6
*sin(6*b*log(c))^2)*n^6)*cos(6*b*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(
c))^2 + b^8*sin(4*b*log(c))^2)*n^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*l
og(c))^2)*n^6)*cos(4*b*log(x^n) + 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^
8*sin(2*b*log(c))^2)*n^8 + (b^6*cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*
n^6)*cos(2*b*log(x^n) + 2*a)^2 + (4*(b^8*cos(6*b*log(c))^2 + b^8*sin(6*b*lo
g(c))^2)*n^8 + (b^6*cos(6*b*log(c))^2 + b^6*sin(6*b*log(c))^2)*n^6)*sin(6*b
*log(x^n) + 6*a)^2 + 9*(4*(b^8*cos(4*b*log(c))^2 + b^8*sin(4*b*log(c))^2)*n
^8 + (b^6*cos(4*b*log(c))^2 + b^6*sin(4*b*log(c))^2)*n^6)*sin(4*b*log(x^n)
+ 4*a)^2 + 9*(4*(b^8*cos(2*b*log(c))^2 + b^8*sin(2*b*log(c))^2)*n^8 + (b^6*
cos(2*b*log(c))^2 + b^6*sin(2*b*log(c))^2)*n^6)*sin(2*b*log(x^n) + 2*a)^2 -
2*(4*b^8*n^8*cos(6*b*log(c)) + b^6*n^6*cos(6*b*log(c)) + 3*(4*(b^8*cos(6*b
*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*
cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^6)
*cos(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(6*b*log(c))*cos(2*b*log(c)) + b^8*
sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log(c))
+ b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) + 3*(4
*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c))

)*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(6*b*log(x^n) + 6*a) + 6*(4*b^8*n^8*cos(4*b*log(c)) + b^6*n^6*cos(4*b*log(c)) - 3*(4*(b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) - 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) - 6*(4*b^8*n^8*cos(2*b*log(c)) + b^6*n^6*cos(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(4*b^8*n^8*sin(6*b*log(c)) + b^6*n^6*sin(6*b*log(c)) + 3*(4*(b^8*cos(4*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(4*b*log(c)))*n^6)*cos(4*b*log(x^n) + 4*a) - 3*(4*(b^8*cos(2*b*log(c))*sin(6*b*log(c)) - b^8*cos(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(6*b*log(c)) - b^6*cos(6*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) - 3*(4*(b^8*cos(6*b*log(c))*cos(4*b*log(c)) + b^8*sin(6*b*log(c))*sin(4*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(4*b*log(c)) + b^6*sin(6*b*log(c))*sin(4*b*log(c)))*n^6)*sin(4*b*log(x^n) + 4*a) + 3*(4*(b^8*cos(6*b*log(c))*cos(2*b*log(c)) + b^8*sin(6*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(6*b*log(c))*cos(2*b*log(c)) + b^6*sin(6*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) - 6*(4*b^8*n^8*sin(4*b*log(c)) + b^6*n^6*sin(4*b*log(c)) - 3*(4*(b^8*cos(2*b*log(c))*sin(4*b*log(c)) - b^8*cos(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(2*b*log(c))*sin(4*b*log(c)) - b^6*cos(4*b*log(c))*sin(2*b*log(c)))*n^6)*cos(2*b*log(x^n) + 2*a) + 3*(4*(b^8*cos(4*b*log(c))*cos(2*b*log(c)) + b^8*sin(4*b*log(c))*sin(2*b*log(c)))*n^8 + (b^6*cos(4*b*log(c))*cos(2*b*log(c)) + b^6*sin(4*b*log(c))*sin(2*b*log(c)))*n^6)*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4*a) + 6*(4*b^8*n^8*sin(2*b*log(c)) + b^6*n^6*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a))*integrate(-1/36*(cos(b*log(x^n) + a)*sin(b*log(c)) + cos(b*log(c))*sin(b*log(x^n) + a))/(2*b^6*n^6*cos(b*log(c))*cos(b*log(x^n) + a) - 2*b^6*n^6*sin(b*log(c))*sin(b*log(x^n) + a) - b^6*n^6 - (b^6*cos(b*log(c))^2 + b^6*sin(b*log(c))^2)*n^6*cos(b*log(x^n) + a)^2 - (b^6*cos(b*log(c))^2 + b^6*sin(b*log(c))^2)*n^6*sin(b*log(x^n) + a)^2), x) + ((2*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n + cos(6*b*log(c))*cos(4*b*log(c)) + sin(6*b*log(c))*sin(4*b*log(c)))*x*cos(4*b*log(x^n) + 4*a) - 2*(6*(b^2*cos(6*b*log(c))*cos(2*b*log(c)) + b^2*sin(6*b*log(c))*sin(2*b*log(c)))*n^2 + (b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n + cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - (2*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n - cos(4*b*log(c))*sin(6*b*log(c)) + cos(6*b*log(c))*sin(4*b*log(c)))*x*sin(4*b*log(x^n) + 4*a) - 2*(6*(b^2*cos(2*b*log(c))*sin(6*b*log(c)) - b^2*cos(6*b*log(c))*sin(2*b*log(c)))*n^2 - (b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b

```
*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log
(c))*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) + (4*b^2*n^2*cos(6*b*log(c)
) + cos(6*b*log(c)))*x)*sin(6*b*log(x^n) + 6*a) + (3*(12*(b^2*cos(4*b*log(c
))*cos(2*b*log(c)) + b^2*sin(4*b*log(c))*sin(2*b*log(c)))*n^2 + 4*(b*cos(2*
b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n + cos(4*b*
log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x^
n) + 2*a) + 3*(12*(b^2*cos(2*b*log(c))*sin(4*b*log(c)) - b^2*cos(4*b*log(c)
)*sin(2*b*log(c)))*n^2 - 4*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4*b*l
og(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c
))*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - 2*(6*b^2*n^2*cos(4*b*log(c)
) + b*n*sin(4*b*log(c)) + cos(4*b*log(c)))*x)*sin(4*b*log(x^n) + 4*a))/(6*b
^3*n^3*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) - 6*b^3*n^3*sin(2*b*log(c))*
sin(2*b*log(x^n) + 2*a) - b^3*n^3 - (b^3*cos(6*b*log(c))^2 + b^3*sin(6*b*lo
g(c))^2)*n^3*cos(6*b*log(x^n) + 6*a)^2 - 9*(b^3*cos(4*b*log(c))^2 + b^3*sin
(4*b*log(c))^2)*n^3*cos(4*b*log(x^n) + 4*a)^2 - 9*(b^3*cos(2*b*log(c))^2 +
b^3*sin(2*b*log(c))^2)*n^3*cos(2*b*log(x^n) + 2*a)^2 - (b^3*cos(6*b*log(c))
^2 + b^3*sin(6*b*log(c))^2)*n^3*sin(6*b*log(x^n) + 6*a)^2 - 9*(b^3*cos(4*b*
log(c))^2 + b^3*sin(4*b*log(c))^2)*n^3*sin(4*b*log(x^n) + 4*a)^2 - 9*(b^3*c
os(2*b*log(c))^2 + b^3*sin(2*b*log(c))^2)*n^3*sin(2*b*log(x^n) + 2*a)^2 + 2
*(b^3*n^3*cos(6*b*log(c)) + 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*si
n(6*b*log(c))*sin(4*b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) - 3*(b^3*cos(6*b
*log(c))*cos(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*cos(2*b
*log(x^n) + 2*a) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log
(c))*sin(4*b*log(c)))*n^3*sin(4*b*log(x^n) + 4*a) - 3*(b^3*cos(2*b*log(c))*
sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n)
 + 2*a))*cos(6*b*log(x^n) + 6*a) - 6*(b^3*n^3*cos(4*b*log(c)) - 3*(b^3*cos(
4*b*log(c))*cos(2*b*log(c)) + b^3*sin(4*b*log(c))*sin(2*b*log(c)))*n^3*cos(
2*b*log(x^n) + 2*a) - 3*(b^3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*
log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*
a) - 2*(b^3*n^3*sin(6*b*log(c)) + 3*(b^3*cos(4*b*log(c))*sin(6*b*log(c)) -
b^3*cos(6*b*log(c))*sin(4*b*log(c)))*n^3*cos(4*b*log(x^n) + 4*a) - 3*(b^3*c
os(2*b*log(c))*sin(6*b*log(c)) - b^3*cos(6*b*log(c))*sin(2*b*log(c)))*n^3*c
os(2*b*log(x^n) + 2*a) - 3*(b^3*cos(6*b*log(c))*cos(4*b*log(c)) + b^3*sin(6
*b*log(c))*sin(4*b*log(c)))*n^3*sin(4*b*log(x^n) + 4*a) + 3*(b^3*cos(6*b*lo
g(c))*cos(2*b*log(c)) + b^3*sin(6*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*lo
g(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) + 6*(b^3*n^3*sin(4*b*log(c)) - 3*(b^
3*cos(2*b*log(c))*sin(4*b*log(c)) - b^3*cos(4*b*log(c))*sin(2*b*log(c)))*n^
3*cos(2*b*log(x^n) + 2*a) + 3*(b^3*cos(4*b*log(c))*cos(2*b*log(c)) + b^3*si
n(4*b*log(c))*sin(2*b*log(c)))*n^3*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n
) + 4*a))
```

Giac [F]

$$\int \csc^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int \csc\left(b\log\left(cx^n\right)+a\right)^4\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^4,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^4, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^4\left(a+b\log\left(cx^n\right)\right)\,dx=\int \frac{1}{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)^4}\,dx$$

```
[In] int(1/sin(a + b*log(c*x^n))^4,x)
[Out] int(1/sin(a + b*log(c*x^n))^4, x)
```

3.300 $\int \frac{\csc^4(a+b\log(cx^n))}{x} dx$

Optimal result . . . 2657
Rubi [A] (verified) . . . 2657
Mathematica [A] (verified) . . . 2658
Maple [A] (verified) . . . 2658
Fricas [A] (verification not implemented) . . . 2658
Sympy [F] . . . 2659
Maxima [B] (verification not implemented) . . . 2659
Giac [F] . . . 2660
Mupad [B] (verification not implemented) . . . 2660

Optimal result

Integrand size = 17, antiderivative size = 43

$$\int \frac{\csc^4(a+b\log(cx^n))}{x} dx = -\frac{\cot(a+b\log(cx^n))}{bn} - \frac{\cot^3(a+b\log(cx^n))}{3bn}$$

```
[Out] -cot(a+b*ln(c*x^n))/b/n-1/3*cot(a+b*ln(c*x^n))^3/b/n
```

Rubi [A] (verified)

Time = 0.04 (sec) , antiderivative size = 43, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 1, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.059, Rules used = {3852}

$$\int \frac{\csc^4(a+b\log(cx^n))}{x} dx = -\frac{\cot^3(a+b\log(cx^n))}{3bn} - \frac{\cot(a+b\log(cx^n))}{bn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^4/x,x]
[Out] -(Cot[a + b*Log[c*x^n]]/(b*n)) - Cot[a + b*Log[c*x^n]]^3/(3*b*n)
```

Rule 3852

```
Int[csc[(c_.) + (d_.)*(x_)]^(n_), x_Symbol] :> Dist[-d^(-1), Subst[Int[Expa
ndIntegrand[(1 + x^2)^(n/2 - 1), x], x], x, Cot[c + d*x]], x] /; FreeQ[{c,
d}, x] && IGtQ[n/2, 0]
```

Rubi steps

$$\begin{aligned} \text{integral} &= \frac{\text{Subst}\left(\int \csc^4(a+bx)\,dx, x, \log(cx^n)\right)}{n} \\ &= -\frac{\text{Subst}\left(\int (1+x^2)\,dx, x, \cot(a+b\log(cx^n))\right)}{bn} \\ &= -\frac{\cot(a+b\log(cx^n))}{bn} - \frac{\cot^3(a+b\log(cx^n))}{3bn} \end{aligned}$$

Mathematica [A] (verified)

Time = 0.07 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.30

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx = -\frac{2\cot(a+b\log(cx^n))}{3bn} - \frac{\cot(a+b\log(cx^n))\csc^2(a+b\log(cx^n))}{3bn}$$

[In] Integrate[Csc[a + b*Log[c*x^n]]^4/x,x]

[Out] (-2*Cot[a + b*Log[c*x^n]])/(3*b*n) - (Cot[a + b*Log[c*x^n]]*Csc[a + b*Log[c *x^n]]^2)/(3*b*n)

Maple [A] (verified)

Time = 4.48 (sec) , antiderivative size = 36, normalized size of antiderivative = 0.84

method	result
derivativedivides	$\frac{\left(-\frac{2}{3}-\frac{\csc(a+b\ln(c\,x^n))^2}{3}\right)\cot(a+b\ln(c\,x^n))}{nb}$
default	$\frac{\left(-\frac{2}{3}-\frac{\csc(a+b\ln(c\,x^n))^2}{3}\right)\cot(a+b\ln(c\,x^n))}{nb}$
parallelrisch	$\frac{-\cot\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^3+\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^3+9\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)-9\cot\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)}{24bn}$
risch	$\frac{4i\left(3(x^n)^{2ib}c^{2ib}e^{-b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}e^{b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}e^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}e^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}e^{2ia}-1\right)}{3bn\left((x^n)^{2ib}c^{2ib}e^{-b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}e^{b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{csgn}(ic)}e^{b\pi\,\mathrm{csgn}(ic\,x^n)^3}e^{-b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}e^{2ia}-1\right)^3}$

[In] int(csc(a+b*ln(c*x^n))^4/x,x,method=_RETURNVERBOSE)

[Out] 1/n/b*(-2/3-1/3*csc(a+b*ln(c*x^n))^2)*cot(a+b*ln(c*x^n))

Fricas [A] (verification not implemented)

none

Time = 0.26 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.65

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx = -\frac{2\cos(bn\log(x)+b\log(c)+a)^3-3\cos(bn\log(x)+b\log(c)+a)}{3\left(bn\cos(bn\log(x)+b\log(c)+a)^2-bn\right)\sin(bn\log(x)+b\log(c)+a)}$$

[In] integrate(csc(a+b*log(c*x^n))^4/x,x, algorithm="fricas")

```
[Out] -1/3*(2*cos(b*n*log(x) + b*log(c) + a)^3 - 3*cos(b*n*log(x) + b*log(c) + a)
)/((b*n*cos(b*n*log(x) + b*log(c) + a)^2 - b*n)*sin(b*n*log(x) + b*log(c) +
 a))
```

Sympy [F]

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx=\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**4/x,x)
```

```
[Out] Integral(csc(a + b*log(c*x**n))**4/x, x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1332 vs. $2(41) = 82$.

Time = 0.24 (sec) , antiderivative size = 1332, normalized size of antiderivative = 30.98

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx=\text{Too large to display}$$

```
[In] integrate(csc(a+b*log(c*x^n))^4/x,x, algorithm="maxima")
```

```
[Out] 4/3*((3*(cos(2*b*log(c))*sin(6*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))
*cos(2*b*log(x^n) + 2*a) - 3*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*log
(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(6*b*log(c)))*cos(6*b*lo
g(x^n) + 6*a) - 3*(3*(cos(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin
(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) - 3*(cos(4*b*log(c))*cos(2*b*log(c))
+ sin(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)
))*cos(4*b*log(x^n) + 4*a) + (3*(cos(6*b*log(c))*cos(2*b*log(c)) + sin(6*b*
log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 3*(cos(2*b*log(c))*sin(6
*b*log(c)) - cos(6*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos
(6*b*log(c)))*sin(6*b*log(x^n) + 6*a) - 3*(3*(cos(4*b*log(c))*cos(2*b*log(c
)) + sin(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*log(x^n) + 2*a) + 3*(cos(2*b*
log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n)
 + 2*a) - cos(4*b*log(c)))*sin(4*b*log(x^n) + 4*a))/((b*cos(6*b*log(c))^2 +
 b*sin(6*b*log(c))^2)*n*cos(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2
+ b*sin(4*b*log(c))^2)*n*cos(4*b*log(x^n) + 4*a)^2 - 6*b*n*cos(2*b*log(c))*
cos(2*b*log(x^n) + 2*a) + 9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*c
os(2*b*log(x^n) + 2*a)^2 + (b*cos(6*b*log(c))^2 + b*sin(6*b*log(c))^2)*n*si
n(6*b*log(x^n) + 6*a)^2 + 9*(b*cos(4*b*log(c))^2 + b*sin(4*b*log(c))^2)*n*s
in(4*b*log(x^n) + 4*a)^2 + 6*b*n*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) +
9*(b*cos(2*b*log(c))^2 + b*sin(2*b*log(c))^2)*n*sin(2*b*log(x^n) + 2*a)^2 +
```

```
b*n - 2*(b*n*cos(6*b*log(c)) + 3*(b*cos(6*b*log(c))*cos(4*b*log(c)) + b*si
n(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) - 3*(b*cos(6*b*log
(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n
) + 2*a) + 3*(b*cos(4*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(4*b
*log(c)))*n*sin(4*b*log(x^n) + 4*a) - 3*(b*cos(2*b*log(c))*sin(6*b*log(c))
- b*cos(6*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*cos(6*b*log
(x^n) + 6*a) + 6*(b*n*cos(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2*b*log(c)
) + b*sin(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) + 2*a) - 3*(b*cos
(2*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*sin(2*b
*log(x^n) + 2*a))*cos(4*b*log(x^n) + 4*a) + 2*(3*(b*cos(4*b*log(c))*sin(6*b
*log(c)) - b*cos(6*b*log(c))*sin(4*b*log(c)))*n*cos(4*b*log(x^n) + 4*a) - 3
*(b*cos(2*b*log(c))*sin(6*b*log(c)) - b*cos(6*b*log(c))*sin(2*b*log(c)))*n*
cos(2*b*log(x^n) + 2*a) + b*n*sin(6*b*log(c)) - 3*(b*cos(6*b*log(c))*cos(4*
b*log(c)) + b*sin(6*b*log(c))*sin(4*b*log(c)))*n*sin(4*b*log(x^n) + 4*a) +
3*(b*cos(6*b*log(c))*cos(2*b*log(c)) + b*sin(6*b*log(c))*sin(2*b*log(c)))*n
*sin(2*b*log(x^n) + 2*a))*sin(6*b*log(x^n) + 6*a) + 6*(3*(b*cos(2*b*log(c))
*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(2*b*log(c)))*n*cos(2*b*log(x^n) +
2*a) - b*n*sin(4*b*log(c)) - 3*(b*cos(4*b*log(c))*cos(2*b*log(c)) + b*sin(4
*b*log(c))*sin(2*b*log(c)))*n*sin(2*b*log(x^n) + 2*a))*sin(4*b*log(x^n) + 4
*a))
```

Giac [F]

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc(b\log(cx^n)+a)^4}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^4/x,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^4/x, x)
```

Mupad [B] (verification not implemented)

Time = 38.37 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.14

$$\int \frac{\csc^4(a+b\log(cx^n))}{x}\,dx = \frac{4\left(e^{a\,2i}\,(c\,x^n)^{b\,2i}\,3i - i\right)}{3\,b\,n\left(e^{a\,2i}\,(c\,x^n)^{b\,2i} - 1\right)^3}$$

```
[In] int(1/(x*sin(a + b*log(c*x^n))^4),x)
[Out] (4*(exp(a*2i)*(c*x^n)^(b*2i)*3i - 1i))/(3*b*n*(exp(a*2i)*(c*x^n)^(b*2i) - 1
)^3)
```

3.301 $\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a\right.\right.$

Optimal result 2661
Rubi [C] (verified) 2661
Mathematica [A] (verified) 2663
Maple [A] (verified) 2663
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Optimal result

Integrand size = 44, antiderivative size = 42

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=-x\csc\left(a+b\log\left(cx^n\right)\right)-bnx\cot\left(a+b\log\left(cx^n\right)\right)\csc\left(a+b\log\left(cx^n\right)\right)$$

```
[Out] -x*csc(a+b*ln(c*x^n))-b*n*x*cot(a+b*ln(c*x^n))*csc(a+b*ln(c*x^n))
```

Rubi [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.15 (sec) , antiderivative size = 172, normalized size of antiderivative = 4.10, number of steps used = 7, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.068, Rules used = {4600, 4602, 371}

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=2e^{ia}x(bn+i)\left(cx^n\right)^{ib}\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)$$
$$-\frac{16e^{3ia}b^2n^2x\left(cx^n\right)^{3ib}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)}{-3bn+i}$$

```
[In] Int[-((1 + b^2*n^2)*Csc[a + b*Log[c*x^n]]) + 2*b^2*n^2*Csc[a + b*Log[c*x^n]
]^3,x]
```

```
[Out] 2*E^(I*a)*(I + b*n)*x*(c*x^n)^(I*b)*Hypergeometric2F1[1, (1 - I/(b*n))/2, (
3 - I/(b*n))/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)] - (16*b^2*E^((3*I)*a)*n^2*x*
(c*x^n)^((3*I)*b)*Hypergeometric2F1[3, (3 - I/(b*n))/2, (5 - I/(b*n))/2, E^
((2*I)*a)*(c*x^n)^((2*I)*b)])/(I - 3*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \left(2b^2n^2\right)\int \csc^3\left(a+b\log\left(cx^n\right)\right)\,dx+\left(-1-b^2n^2\right)\int \csc\left(a+b\log\left(cx^n\right)\right)\,dx\\
&= \left(2b^2nx\left(cx^n\right)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^3(a+b\log(x))\,dx,x,cx^n\right)\\
&\quad+\frac{\left(\left(-1-b^2n^2\right)x\left(cx^n\right)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc(a+b\log(x))\,dx,x,cx^n\right)}{n}\\
&= \left(16ib^2e^{3ia}nx\left(cx^n\right)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+3ib+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^3}\,dx,x,cx^n\right)\\
&\quad-\frac{\left(2ie^{ia}\left(-1-b^2n^2\right)x\left(cx^n\right)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+ib+\frac{1}{n}}}{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n}\\
&= 2e^{ia}(i+bn)x\left(cx^n\right)^{ib}\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i}{bn}\right),\frac{1}{2}\left(3-\frac{i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)\\
&\quad-\frac{16b^2e^{3ia}n^2x\left(cx^n\right)^{3ib}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i}{bn}\right),\frac{1}{2}\left(5-\frac{i}{bn}\right),e^{2ia}\left(cx^n\right)^{2ib}\right)}{i-3bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.41 (sec) , antiderivative size = 30, normalized size of antiderivative = 0.71

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=-x(1+bn\cot\left(a+b\log\left(cx^n\right)\right))\csc\left(a+b\log\left(cx^n\right)\right)$$

```
[In] Integrate[-((1 + b^2*n^2)*Csc[a + b*Log[c*x^n]]) + 2*b^2*n^2*Csc[a + b*Log[
c*x^n]]^3,x]
```

```
[Out] -(x*(1 + b*n*Cot[a + b*Log[c*x^n]])*Csc[a + b*Log[c*x^n]])
```

Maple [A] (verified)

Time = 14.07 (sec) , antiderivative size = 82, normalized size of antiderivative = 1.95

method	result
parallelrisch	$\frac{x\left(\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^4 bn-2\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^3-bn-2\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)\right)}{4\tan\left(\frac{a}{2}+b\ln\left(\sqrt{c\,x^n}\right)\right)^2}$
risch	$2c^{ib}(x^n)^{ib}x\left(nb\,c^{2ib}(x^n)^{2ib}\mathrm{e}^{\frac{3b\pi\,\mathrm{csgn}(ic\,x^n)^3}{2}}\mathrm{e}^{-\frac{3b\pi\,\mathrm{csgn}(ic\,x^n)^2\,\mathrm{csgn}(ic)}{2}}\mathrm{e}^{-\frac{3b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)^2}{2}}\mathrm{e}^{\frac{3b\pi\,\mathrm{csgn}(ix^n)\,\mathrm{csgn}(ic\,x^n)\,\mathrm{cs}}{2}}\right.$

```
[In] int(-(b^2*n^2+1)*csc(a+b*ln(c*x^n))+2*b^2*n^2*csc(a+b*ln(c*x^n))^3,x,method
=_RETURNVERBOSE)
```

```
[Out] 1/4*x*(tan(1/2*a+b*ln((c*x^n)^(1/2)))^4*b*n-2*tan(1/2*a+b*ln((c*x^n)^(1/2))
)^3-b*n-2*tan(1/2*a+b*ln((c*x^n)^(1/2))))/tan(1/2*a+b*ln((c*x^n)^(1/2)))^2
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 50, normalized size of antiderivative = 1.19

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\frac{bnx\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+x\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)}{\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)^2-1}$$

```
[In] integrate(-(b^2*n^2+1)*csc(a+b*log(c*x^n))+2*b^2*n^2*csc(a+b*log(c*x^n))^3,
x, algorithm="fricas")
```

```
[Out] (b*n*x*cos(b*n*log(x) + b*log(c) + a) + x*sin(b*n*log(x) + b*log(c) + a))/(
cos(b*n*log(x) + b*log(c) + a)^2 - 1)
```

Sympy [F]

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\int \left(2b^2n^2\csc^2\left(a+b\log\left(cx^n\right)\right)-b^2n^2-1\right)\csc\left(a+b\log\left(cx^n\right)\right)dx$$

```
[In] integrate(-(b**2*n**2+1)*csc(a+b*ln(c*x**n))+2*b**2*n**2*csc(a+b*ln(c*x**n)
)**3,x)
```

```
[Out] Integral((2*b**2*n**2*csc(a + b*log(c*x**n))**2 - b**2*n**2 - 1)*csc(a + b*
log(c*x**n)), x)
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 1701 vs. $2(42)=84$.

Time = 0.50 (sec) , antiderivative size = 1701, normalized size of antiderivative = 40.50

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx=\text{Too large to display}$$

```
[In] integrate(-(b^2*n^2+1)*csc(a+b*log(c*x^n))+2*b^2*n^2*csc(a+b*log(c*x^n))^3,
x, algorithm="maxima")
```

```
[Out] 2*((b*n*cos(b*log(c)) - sin(b*log(c)))*x*cos(b*log(x^n) + a) - (b*n*sin(b*l
og(c)) + cos(b*log(c)))*x*sin(b*log(x^n) + a) + (((b*cos(4*b*log(c))*cos(3*
b*log(c)) + b*sin(4*b*log(c))*sin(3*b*log(c)))*n - cos(3*b*log(c))*sin(4*b*
log(c)) + cos(4*b*log(c))*sin(3*b*log(c)))*x*cos(3*b*log(x^n) + 3*a) + ((b*
cos(4*b*log(c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + cos(b*
log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) +
 a) + ((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c
)))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*
x*sin(3*b*log(x^n) + 3*a) + ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*l
og(c))*sin(b*log(c)))*n - cos(4*b*log(c))*cos(b*log(c)) - sin(4*b*log(c))*s
in(b*log(c)))*x*sin(b*log(x^n) + a))*cos(4*b*log(x^n) + 4*a) - (2*((b*cos(3
*b*log(c))*cos(2*b*log(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b
*log(c))*sin(3*b*log(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*cos(2*b*log(x
^n) + 2*a) + 2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c))*sin(
2*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*sin(2*b*
log(c)))*x*sin(2*b*log(x^n) + 2*a) - (b*n*cos(3*b*log(c)) + sin(3*b*log(c))
)*x)*cos(3*b*log(x^n) + 3*a) - 2*(((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin
(2*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(2*b*log(c)) - cos(2*b*log
(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) + ((b*cos(b*log(c))*sin(2*b*log(c
)) - b*cos(2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(c))*cos(b*log(c)) - s
```

```
in(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*cos(2*b*log(x^n) + 2*a
) - (((b*cos(3*b*log(c))*sin(4*b*log(c)) - b*cos(4*b*log(c))*sin(3*b*log(c)
))*n + cos(4*b*log(c))*cos(3*b*log(c)) + sin(4*b*log(c))*sin(3*b*log(c)))*x
*cos(3*b*log(x^n) + 3*a) + ((b*cos(b*log(c))*sin(4*b*log(c)) - b*cos(4*b*lo
g(c))*sin(b*log(c)))*n - cos(4*b*log(c))*cos(b*log(c)) - sin(4*b*log(c))*si
n(b*log(c)))*x*cos(b*log(x^n) + a) - ((b*cos(4*b*log(c))*cos(3*b*log(c)) +
b*sin(4*b*log(c))*sin(3*b*log(c)))*n - cos(3*b*log(c))*sin(4*b*log(c)) + co
s(4*b*log(c))*sin(3*b*log(c)))*x*sin(3*b*log(x^n) + 3*a) - ((b*cos(4*b*log(
c))*cos(b*log(c)) + b*sin(4*b*log(c))*sin(b*log(c)))*n + cos(b*log(c))*sin(
4*b*log(c)) - cos(4*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^n) + a))*sin(4*b
*log(x^n) + 4*a) + (2*((b*cos(2*b*log(c))*sin(3*b*log(c)) - b*cos(3*b*log(c
))*sin(2*b*log(c)))*n - cos(3*b*log(c))*cos(2*b*log(c)) - sin(3*b*log(c))*s
in(2*b*log(c)))*x*cos(2*b*log(x^n) + 2*a) - 2*((b*cos(3*b*log(c))*cos(2*b*l
og(c)) + b*sin(3*b*log(c))*sin(2*b*log(c)))*n + cos(2*b*log(c))*sin(3*b*log
(c)) - cos(3*b*log(c))*sin(2*b*log(c)))*x*sin(2*b*log(x^n) + 2*a) - (b*n*si
n(3*b*log(c)) - cos(3*b*log(c)))*x)*sin(3*b*log(x^n) + 3*a) + 2*(((b*cos(b*
log(c))*sin(2*b*log(c)) - b*cos(2*b*log(c))*sin(b*log(c)))*n - cos(2*b*log(
c))*cos(b*log(c)) - sin(2*b*log(c))*sin(b*log(c)))*x*cos(b*log(x^n) + a) -
((b*cos(2*b*log(c))*cos(b*log(c)) + b*sin(2*b*log(c))*sin(b*log(c)))*n + co
s(b*log(c))*sin(2*b*log(c)) - cos(2*b*log(c))*sin(b*log(c)))*x*sin(b*log(x^
n) + a))*sin(2*b*log(x^n) + 2*a))/((cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*
cos(4*b*log(x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*cos(2
*b*log(x^n) + 2*a)^2 + (cos(4*b*log(c))^2 + sin(4*b*log(c))^2)*sin(4*b*log(
x^n) + 4*a)^2 + 4*(cos(2*b*log(c))^2 + sin(2*b*log(c))^2)*sin(2*b*log(x^n)
+ 2*a)^2 - 2*(2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2*b*
log(c)))*cos(2*b*log(x^n) + 2*a) + 2*(cos(2*b*log(c))*sin(4*b*log(c)) - cos
(4*b*log(c))*sin(2*b*log(c)))*sin(2*b*log(x^n) + 2*a) - cos(4*b*log(c)))*co
s(4*b*log(x^n) + 4*a) - 4*cos(2*b*log(c))*cos(2*b*log(x^n) + 2*a) + 2*(2*(c
os(2*b*log(c))*sin(4*b*log(c)) - cos(4*b*log(c))*sin(2*b*log(c)))*cos(2*b*l
og(x^n) + 2*a) - 2*(cos(4*b*log(c))*cos(2*b*log(c)) + sin(4*b*log(c))*sin(2
*b*log(c)))*sin(2*b*log(x^n) + 2*a) - sin(4*b*log(c)))*sin(4*b*log(x^n) + 4
*a) + 4*sin(2*b*log(c))*sin(2*b*log(x^n) + 2*a) + 1)
```

Giac [F]

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\int 2\,b^2n^2\csc\left(b\log\left(cx^n\right)+a\right)^3-\left(b^2n^2+1\right)\csc\left(b\log\left(cx^n\right)+a\right)\,dx$$

```
[In] integrate(-(b^2*n^2+1)*csc(a+b*log(c*x^n))+2*b^2*n^2*csc(a+b*log(c*x^n))^3,
x, algorithm="giac")
```

```
[Out] integrate(2*b^2*n^2*csc(b*log(c*x^n) + a)^3 - (b^2*n^2 + 1)*csc(b*log(c*x^n
) + a), x)
```

Mupad [B] (verification not implemented)

Time = 28.65 (sec) , antiderivative size = 85, normalized size of antiderivative = 2.02

$$\int \left(-\left(\left(1+b^2n^2\right)\csc\left(a+b\log\left(cx^n\right)\right)\right)+2b^2n^2\csc^3\left(a+b\log\left(cx^n\right)\right)\right)\,dx$$
$$=\frac{2\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}\,\left(b\,n+1\mathrm{i}\right)+2\,x\,\mathrm{e}^{a\,1\mathrm{i}}\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,1\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}\,\left(b\,n-\mathrm{i}\right)}{{\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^n\right)}^{b\,2\mathrm{i}}-1\right)}^2}$$

```
[In] int((2*b^2*n^2)/sin(a + b*log(c*x^n))^3 - (b^2*n^2 + 1)/sin(a + b*log(c*x^n
)),x)
```

```
[Out] (2*x*exp(a*1i)*(c*x^n)^(b*1i)*(b*n + 1i) + 2*x*exp(a*1i)*exp(a*2i)*(c*x^n)^
(b*1i)*(c*x^n)^(b*2i)*(b*n - 1i))/(exp(a*2i)*(c*x^n)^(b*2i) - 1)^2
```

3.302 $\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$

Optimal result 2667
Rubi [C] (verified) 2667
Mathematica [A] (verified) 2669
Maple [A] (verified) 2669
Fricas [C] (verification not implemented) 2669
Sympy [F(-1)] 2670
Maxima [B] (verification not implemented) 2670
Giac [C] (verification not implemented) 2671
Mupad [B] (verification not implemented) 2672

Optimal result

Integrand size = 31, antiderivative size = 110

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \frac{x^{1+m}\csc\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)}{2(1+m)} - \frac{x^{1+m}\cot\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\csc\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)}{2\sqrt{-(1+m)^2}}$$

```
[Out] 1/2*x^(1+m)*csc(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))/(1+m)-1/2*x^(1+m)*cot(a
+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))*csc(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))/
(-(1+m)^2)^(1/2)
```

Rubi [C] (verified)

Result contains higher order function than in optimal. Order 5 vs. order 3 in optimal.

Time = 0.21 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.29, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.097, Rules used = {4606, 4602, 371}

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = -\frac{8e^{3ia}x^{m+1}\left(cx^{\frac{1}{2}\sqrt{-(m+1)^2}}\right)^{6i}\text{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i(m+1)}{\sqrt{-(m+1)^2}}\right),\frac{1}{2}\left(5-\frac{i(m+1)}{\sqrt{-(m+1)^2}}\right),e^{2ia}\left(cx^{\frac{1}{2}\sqrt{-(}\right.\right.}{im-3\sqrt{-(m+1)^2}+i}$$

```
[In] Int[x^m*Csc[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]]^3,x]
```

```
[Out] (-8*E^((3*I)*a)*x^(1 + m)*(c*x^(Sqrt[-(1 + m)^2]/2))^(6*I)*Hypergeometric2F
1[3, (3 - (I*(1 + m))/Sqrt[-(1 + m)^2])/2, (5 - (I*(1 + m))/Sqrt[-(1 + m)^2
])/2, E^((2*I)*a)*(c*x^(Sqrt[-(1 + m)^2]/2))^(4*I)])/(I + I*m - 3*Sqrt[-(1
+ m)^2])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

integral

$$=\frac{\left(2x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{-\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\right)\mathrm{Subst}\left(\int x^{-1+\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\csc^3(a+2\log(x))\,dx,x,cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)}{\sqrt{-(1+m)^2}}$$

$$=\frac{\left(16ie^{3ia}x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{-\frac{2(1+m)}{\sqrt{-(1+m)^2}}}\right)\mathrm{Subst}\left(\int\frac{x^{(-1+6i)+\frac{2(1+m)}{\sqrt{-(1+m)^2}}}}{\left(1-e^{2ia}x^{4i}\right)^3}\,dx,x,cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)}{\sqrt{-(1+m)^2}}$$

$$=-\frac{8e^{3ia}x^{1+m}\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)^{6i}\mathrm{Hypergeometric2F1}\left(3,\frac{1}{2}\left(3-\frac{i(1+m)}{\sqrt{-(1+m)^2}}\right),\frac{1}{2}\left(5-\frac{i(1+m)}{\sqrt{-(1+m)^2}}\right),e^{2ia}\left(c\right.\right.}{i+im-3\sqrt{-(1+m)^2}}$$

Mathematica [A] (verified)

Time = 1.51 (sec) , antiderivative size = 79, normalized size of antiderivative = 0.72

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \frac{x^{1+m}\left(1+m+\sqrt{-(1+m)^2}\cot\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\right)\csc\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)}{2(1+m)^2}$$

```
[In] Integrate[x^m*Csc[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]]^3,x]
[Out] (x^(1 + m)*(1 + m + Sqrt[-(1 + m)^2]*Cot[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)
]])*Csc[a + 2*Log[c*x^(Sqrt[-(1 + m)^2]/2)]])/(2*(1 + m)^2)
```

Maple [A] (verified)

Time = 217.82 (sec) , antiderivative size = 123, normalized size of antiderivative = 1.12

method	result
parallelrisch	$-\frac{\left(\left(\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{\sqrt{-(1+m)^2}}{2}}\right)\right)^2-1\right)\sqrt{-(1+m)^2}-2(1+m)\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{\sqrt{-(1+m)^2}}{2}}\right)\right)\right)x^{1+m}\left(1+\tan\left(\frac{a}{2}+\ln\left(c\right.\right.\right.}{8(1+m)^2\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{\sqrt{-(1+m)^2}}{2}}\right)\right)^2}$

```
[In] int(x^m*csc(a+2*ln(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x,method=_RETURNVERBOSE)
[Out] -1/8*((tan(1/2*a+ln(c*x^(1/2*(-(1+m)^2)^(1/2))))^2-1)*(-(1+m)^2)^(1/2)-2*(1
+m)*tan(1/2*a+ln(c*x^(1/2*(-(1+m)^2)^(1/2)))))*x^(1+m)*(1+tan(1/2*a+ln(c*x^
(1/2*(-(1+m)^2)^(1/2))))^2)/(1+m)^2/tan(1/2*a+ln(c*x^(1/2*(-(1+m)^2)^(1/2))
))^2
```

Fricas [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 0.25 (sec) , antiderivative size = 83, normalized size of antiderivative = 0.75

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = -\frac{2\left(2i\,x^2x^{2\,m}e^{(3i\,a+6i\,\log(c))}-i\,e^{(5i\,a+10i\,\log(c))}\right)}{(m+1)x^4x^{4\,m}-2\,(m+1)x^2x^{2\,m}e^{(2i\,a+4i\,\log(c))}+(m+1)e^{(4i\,a+8i\,\log(c))}}$$

```
[In] integrate(x^m*csc(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="fric
as")
```

```
[Out] -2*(2*I*x^2*x^(2*m)*e^(3*I*a + 6*I*log(c)) - I*e^(5*I*a + 10*I*log(c)))/((m
 + 1)*x^4*x^(4*m) - 2*(m + 1)*x^2*x^(2*m)*e^(2*I*a + 4*I*log(c)) + (m + 1)*
e^(4*I*a + 8*I*log(c)))
```

Sympy [F(-1)]

Timed out.

$$\int x^m \csc^3\left(a + 2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \text{Timed out}$$

```
[In] integrate(x**m*csc(a+2*ln(c*x**(1/2*(-(1+m)**2)**(1/2))))**3,x)
```

```
[Out] Timed out
```

Maxima [B] (verification not implemented)

Leaf count of result is larger than twice the leaf count of optimal. 974 vs. $2(92) = 184$.

Time = 0.31 (sec) , antiderivative size = 974, normalized size of antiderivative = 8.85

$$\int x^m \csc^3\left(a + 2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*csc(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="maxi
ma")
```

```
[Out] 2*((cos(2*log(c))*sin(a) + cos(a)*sin(2*log(c)))*x*e^(m*log(x) + 14*arctan2
(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 14*arctan2(sin(1/2*log(x)), cos(1/
2*log(x)))) + 2*(((cos(a)*sin(2*a) - cos(2*a)*sin(a))*cos(2*log(c)) - (cos(
2*a)*cos(a) + sin(2*a)*sin(a))*sin(2*log(c)))*cos(4*log(c)) + ((cos(2*a)*co
s(a) + sin(2*a)*sin(a))*cos(2*log(c)) + (cos(a)*sin(2*a) - cos(2*a)*sin(a))
*sin(2*log(c)))*sin(4*log(c)))*x*e^(m*log(x) + 10*arctan2(sin(1/2*m*log(x))
, cos(1/2*m*log(x))) + 10*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))) - (((c
os(a)*sin(4*a) - cos(4*a)*sin(a))*cos(2*log(c)) - (cos(4*a)*cos(a) + sin(4*
a)*sin(a))*sin(2*log(c)))*cos(8*log(c)) + ((cos(4*a)*cos(a) + sin(4*a)*sin(
a))*cos(2*log(c)) + (cos(a)*sin(4*a) - cos(4*a)*sin(a))*sin(2*log(c)))*sin(
8*log(c)))*x*e^(m*log(x) + 6*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x)))
 + 6*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))))/((cos(4*a)^2 + sin(4*a)^2)*
cos(8*log(c))^2 + (cos(4*a)^2 + sin(4*a)^2)*sin(8*log(c))^2 + ((cos(4*a)^2
 + sin(4*a)^2)*cos(8*log(c))^2 + (cos(4*a)^2 + sin(4*a)^2)*sin(8*log(c))^2)*
m + (m + 1)*e^(16*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 16*arctan
2(sin(1/2*log(x)), cos(1/2*log(x)))) - 4*((cos(2*a)*cos(4*log(c)) - sin(2*a
)*sin(4*log(c)))*m + cos(2*a)*cos(4*log(c)) - sin(2*a)*sin(4*log(c)))*e^(12
*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 12*arctan2(sin(1/2*log(x))
, cos(1/2*log(x)))) + 2*(2*(cos(2*a)^2 + sin(2*a)^2)*cos(4*log(c))^2 + 2*(c
os(2*a)^2 + sin(2*a)^2)*sin(4*log(c))^2 + (2*(cos(2*a)^2 + sin(2*a)^2)*cos(
```

```
4*log(c))^2 + 2*(cos(2*a)^2 + sin(2*a)^2)*sin(4*log(c))^2 + cos(4*a)*cos(8*
log(c)) - sin(4*a)*sin(8*log(c)))*m + cos(4*a)*cos(8*log(c)) - sin(4*a)*sin
(8*log(c)))*e^(8*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log(x))) + 8*arctan2(
sin(1/2*log(x)), cos(1/2*log(x)))) - 4*((((cos(4*a)*cos(2*a) + sin(4*a)*sin
(2*a))*cos(4*log(c)) + (cos(2*a)*sin(4*a) - cos(4*a)*sin(2*a))*sin(4*log(c)
))*cos(8*log(c)) - ((cos(2*a)*sin(4*a) - cos(4*a)*sin(2*a))*cos(4*log(c)) -
 (cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*sin(4*log(c)))*sin(8*log(c)))*m +
((cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*cos(4*log(c)) + (cos(2*a)*sin(4*a)
 - cos(4*a)*sin(2*a))*sin(4*log(c)))*cos(8*log(c)) - ((cos(2*a)*sin(4*a) -
cos(4*a)*sin(2*a))*cos(4*log(c)) - (cos(4*a)*cos(2*a) + sin(4*a)*sin(2*a))*
sin(4*log(c)))*sin(8*log(c)))*e^(4*arctan2(sin(1/2*m*log(x)), cos(1/2*m*log
(x))) + 4*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))))
```

Giac [C] (verification not implemented)

Result contains complex when optimal does not.

Time = 11.51 (sec) , antiderivative size = 839, normalized size of antiderivative = 7.63

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx = \text{Too large to display}$$

```
[In] integrate(x^m*csc(a+2*log(c*x^(1/2*(-(1+m)^2)^(1/2))))^3,x, algorithm="giac
")
```

```
[Out] I*c^(6*I)*m*x*x^m*x^abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^(8*I)
*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2*I*a)
 - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*abs(m + 1))*e^(2
*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1))) - I
*c^(6*I)*x*x^m*x^abs(m + 1)*abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2
*c^(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e
^(2*I*a) - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*abs(m +
1))*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m +
1))) + I*c^(6*I)*x*x^m*x^abs(m + 1)*e^(3*I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c^
(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(2
*I*a) - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*abs(m + 1))
*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1))
) - I*c^(2*I)*m*x*x^m*x^(3*abs(m + 1))*e^(I*a)/(c^(8*I)*m^2*e^(4*I*a) + 2*c
^(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m + 1))*e^(
2*I*a) - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*abs(m + 1)
)*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*abs(m + 1)
)) - I*c^(2*I)*x*x^m*x^(3*abs(m + 1))*abs(m + 1)*e^(I*a)/(c^(8*I)*m^2*e^(4*
I*a) + 2*c^(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m
 + 1))*e^(2*I*a) - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*
abs(m + 1))*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*
abs(m + 1))) - I*c^(2*I)*x*x^m*x^(3*abs(m + 1))*e^(I*a)/(c^(8*I)*m^2*e^(4*I
```

```
*a) + 2*c^(8*I)*m*e^(4*I*a) + c^(8*I)*e^(4*I*a) - 2*c^(4*I)*m^2*x^(2*abs(m
+ 1))*e^(2*I*a) - 4*c^(4*I)*m*x^(2*abs(m + 1))*e^(2*I*a) - 2*c^(4*I)*x^(2*a
bs(m + 1))*e^(2*I*a) + m^2*x^(4*abs(m + 1)) + 2*m*x^(4*abs(m + 1)) + x^(4*a
bs(m + 1)))
```

Mupad [B] (verification not implemented)

Time = 32.42 (sec) , antiderivative size = 171, normalized size of antiderivative = 1.55

$$\int x^m \csc^3\left(a+2\log\left(cx^{\frac{1}{2}\sqrt{-(1+m)^2}}\right)\right)\,dx$$
$$=\frac{\frac{x^{m+1}\,e^{a\,1i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{6i}\left(e^{a\,2i}+e^{a\,2i}\sqrt{-(m+1)^2}\,1i+m\,e^{a\,2i}\right)}{\sqrt{-(m+1)^2}}+\frac{x^{m+1}\,e^{a\,1i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{2i}\left(m+1-\sqrt{-(m+1)^2}\,1i\right)}{\sqrt{-(m+1)^2}}}{(m+1)\left(e^{a\,2i}\left(c\,x^{\frac{\sqrt{-m^2-2\,m-1}}{2}}\right)^{4i}-1\right)^2}$$

```
[In] int(x^m/sin(a + 2*log(c*x^((-(m + 1)^2)^(1/2)/2)))^3,x)
```

```
[Out] ((x^(m + 1)*exp(a*1i)*(c*x^((- 2*m - m^2 - 1)^(1/2)/2))^6i*(exp(a*2i) + exp
(a*2i)*(-(m + 1)^2)^(1/2)*1i + m*exp(a*2i)))/(-(m + 1)^2)^(1/2) + (x^(m + 1
)*exp(a*1i)*(c*x^((- 2*m - m^2 - 1)^(1/2)/2))^2i*(m - (-(m + 1)^2)^(1/2)*1i
 + 1))/(-(m + 1)^2)^(1/2))/((m + 1)*(exp(a*2i)*(c*x^((- 2*m - m^2 - 1)^(1/2
)/2))^4i - 1)^2)
```

3.303 $\int x \csc^3\left(a+2\log\left(cx^i\right)\right)\,dx$

Optimal result . . . 2673
Rubi [A] (verified) . . . 2673
Mathematica [B] (verified) . . . 2674
Maple [C] (warning: unable to verify) . . . 2675
Fricas [A] (verification not implemented) . . . 2675
Sympy [F] . . . 2675
Maxima [B] (verification not implemented) . . . 2676
Giac [F] . . . 2676
Mupad [B] (verification not implemented) . . . 2676

Optimal result

Integrand size = 17, antiderivative size = 49

$$\int x \csc^3\left(a+2\log\left(cx^i\right)\right)\,dx=-\frac{ie^{ia}\left(cx^i\right)^{2i}x^2}{\left(1-e^{2ia}\left(cx^i\right)^{4i}\right)^2}$$

```
[Out] -I*exp(I*a)*(c*x^I)^(2*I)*x^2/(1-exp(2*I*a)*(c*x^I)^(4*I))^2
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 49, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4606, 4602, 267}

$$\int x \csc^3\left(a+2\log\left(cx^i\right)\right)\,dx=-\frac{ie^{ia}x^2\left(cx^i\right)^{2i}}{\left(1-e^{2ia}\left(cx^i\right)^{4i}\right)^2}$$

```
[In] Int[x*Csc[a + 2*Log[c*x^I]]^3,x]
```

```
[Out] ((-I)*E^(I*a)*(c*x^I)^(2*I)*x^2)/(1 - E^((2*I)*a)*(c*x^I)^(4*I))^2
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
```

```
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}\text{integral} &= -\left(\left(i\left(cx^i\right)^{2i}x^2\right)\text{Subst}\left(\int x^{-1-2i}\csc^3(a+2\log(x))\,dx,x,cx^i\right)\right)\\ &= \left(8e^{3ia}\left(cx^i\right)^{2i}x^2\right)\text{Subst}\left(\int \frac{x^{-1+4i}}{\left(1-e^{2ia}x^{4i}\right)^3}\,dx,x,cx^i\right)\\ &= -\frac{ie^{ia}\left(cx^i\right)^{2i}x^2}{\left(1-e^{2ia}\left(cx^i\right)^{4i}\right)^2}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 127 vs. 2(49) = 98.

Time = 0.16 (sec) , antiderivative size = 127, normalized size of antiderivative = 2.59

$$\int x\csc^3\left(a+2\log\left(cx^i\right)\right)\,dx$$
$$=\frac{\csc^2\left(a+2\log\left(cx^i\right)\right)\left(i(-1+2x^4)\cos\left(a+2\log\left(cx^i\right)-2i\log(x)\right)+(1+2x^4)\sin\left(a+2\log\left(cx^i\right)-2i\log(x\right.}{4x^4}$$

```
[In] Integrate[x*Csc[a + 2*Log[c*x^I]]^3,x]
```

```
[Out] (Csc[a + 2*Log[c*x^I]]^2*(I*(-1 + 2*x^4)*Cos[a + 2*Log[c*x^I] - (2*I)*Log[x
]] + (1 + 2*x^4)*Sin[a + 2*Log[c*x^I] - (2*I)*Log[x]])*(Cos[2*(a + 2*Log[c*
x^I] - (2*I)*Log[x])] + I*Sin[2*(a + 2*Log[c*x^I] - (2*I)*Log[x])]))/(4*x^4
)
```

Maple [C] (warning: unable to verify)

Result contains higher order function than in optimal. Order 9 vs. order 3.

Time = 0.22 (sec) , antiderivative size = 211, normalized size of antiderivative = 4.31

$$-\frac{i x^{2} c^{2 i} \left(x^{i}\right)^{2 i} \mathrm{e}^{-\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\,x^{i}\right)^{2}+\pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\,x^{i}\right) \mathrm{csgn}\left(i c\right)+\pi \,\mathrm{csgn}\left(i c\,x^{i}\right)^{3}-\pi \,\mathrm{csgn}\left(i c\,x^{i}\right)^{2} \mathrm{csgn}\left(i c\right)+i a}}{\left(\left(x^{i}\right)^{4 i} c^{4 i} \mathrm{e}^{-2 \pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\,x^{i}\right)^{2}} \mathrm{e}^{2 \pi \,\mathrm{csgn}\left(i x^{i}\right) \mathrm{csgn}\left(i c\,x^{i}\right) \mathrm{csgn}\left(i c\right)} \mathrm{e}^{2 \pi \,\mathrm{csgn}\left(i c\,x^{i}\right)^{3}} \mathrm{e}^{-2 \pi \,\mathrm{csgn}\left(i c\,x^{i}\right)^{2} \mathrm{csgn}\left(i c\right)} \mathrm{e}^{2 i a}-1\right)^{2}}$$

```
[In] int(x*csc(a+2*ln(c*x^I))^3,x)
```

```
[Out] -I*x^2*c^(2*I)*(x^I)^(2*I)*exp(-Pi*csgn(I*x^I)*csgn(I*c*x^I)^2+Pi*csgn(I*x^
I)*csgn(I*c*x^I)*csgn(I*c)+Pi*csgn(I*c*x^I)^3-Pi*csgn(I*c*x^I)^2*csgn(I*c)+
I*a)/(((x^I)^(2*I))^2*(c^(2*I))^2*exp(-2*Pi*csgn(I*x^I)*csgn(I*c*x^I)^2)*ex
p(2*Pi*csgn(I*x^I)*csgn(I*c*x^I)*csgn(I*c))*exp(2*Pi*csgn(I*c*x^I)^3)*exp(-
2*Pi*csgn(I*c*x^I)^2*csgn(I*c))*exp(2*I*a)-1)^2
```

Fricas [A] (verification not implemented)

none

Time = 0.23 (sec) , antiderivative size = 56, normalized size of antiderivative = 1.14

$$\int x \csc^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx = \frac{-2 i\, x^{4} e^{\left(3 i\, a + 6 i\, \log\left(c\right)\right)} + i\, e^{\left(5 i\, a + 10 i\, \log\left(c\right)\right)}}{x^{8} - 2\, x^{4} e^{\left(2 i\, a + 4 i\, \log\left(c\right)\right)} + e^{\left(4 i\, a + 8 i\, \log\left(c\right)\right)}}$$

```
[In] integrate(x*csc(a+2*log(c*x^I))^3,x, algorithm="fricas")
```

```
[Out] (-2*I*x^4*e^(3*I*a + 6*I*log(c)) + I*e^(5*I*a + 10*I*log(c)))/(x^8 - 2*x^4*
e^(2*I*a + 4*I*log(c)) + e^(4*I*a + 8*I*log(c)))
```

Sympy [F]

$$\int x \csc^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx = \int x \csc^{3}\left(a+2 \log\left(c x^{i}\right)\right)\, dx$$

```
[In] integrate(x*csc(a+2*ln(c*x**I))**3,x)
```

```
[Out] Integral(x*csc(a + 2*log(c*x**I))**3, x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 139 vs. 2(32) = 64.

Time = 0.24 (sec) , antiderivative size = 139, normalized size of antiderivative = 2.84

$$\int x\csc^3\left(a+2\log\left(cx^i\right)\right)\,dx$$
$$=\frac{\left(\left(-i\cos\left(a\right)+\sin\left(a\right)\right)\cos\left(2\log\left(c\right)\right)+\left(\cos\left(a\right)+i\right.\right.}{\left(\cos\left(4a\right)+i\sin\left(4a\right)\right)\cos\left(8\log\left(c\right)\right)-2\left(\left(\cos\left(2a\right)+i\sin\left(2a\right)\right)\cos\left(4\log\left(c\right)\right)+\left(i\cos\left(2a\right)-\sin\left(2a\right)\right)\mathrm{si}\right.}$$

```
[In] integrate(x*csc(a+2*log(c*x^I))^3,x, algorithm="maxima")
```

```
[Out] ((-I*cos(a) + sin(a))*cos(2*log(c)) + (cos(a) + I*sin(a))*sin(2*log(c)))*x^
2*e^(6*arctan2(sin(log(x)), cos(log(x))))/((cos(4*a) + I*sin(4*a))*cos(8*lo
g(c)) - 2*((cos(2*a) + I*sin(2*a))*cos(4*log(c)) + (I*cos(2*a) - sin(2*a))*
sin(4*log(c)))*e^(4*arctan2(sin(log(x)), cos(log(x)))) + (I*cos(4*a) - sin(
4*a))*sin(8*log(c)) + e^(8*arctan2(sin(log(x)), cos(log(x)))))
```

Giac [F]

$$\int x\csc^3\left(a+2\log\left(cx^i\right)\right)\,dx=\int x\csc\left(a+2\log\left(cx^i\right)\right)^3\,dx$$

```
[In] integrate(x*csc(a+2*log(c*x^I))^3,x, algorithm="giac")
```

```
[Out] integrate(x*csc(a + 2*log(c*x^I))^3, x)
```

Mupad [B] (verification not implemented)

Time = 28.93 (sec) , antiderivative size = 45, normalized size of antiderivative = 0.92

$$\int x\csc^3\left(a+2\log\left(cx^i\right)\right)\,dx=-\frac{x^2\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{2\mathrm{i}}\,1\mathrm{i}}{1+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{8\mathrm{i}}-2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^{1\mathrm{i}}\right)}^{4\mathrm{i}}}$$

```
[In] int(x/sin(a + 2*log(c*x^1i))^3,x)
```

```
[Out] -(x^2*exp(a*1i)*(c*x^1i)^2i*1i)/(exp(a*4i)*(c*x^1i)^8i - 2*exp(a*2i)*(c*x^1
i)^4i + 1)
```

3.304 $\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx$

Optimal result 2677
Rubi [A] (verified) 2677
Mathematica [B] (verified) 2678
Maple [A] (verified) 2679
Fricas [A] (verification not implemented) 2679
Sympy [F] 2679
Maxima [B] (verification not implemented) 2680
Giac [A] (verification not implemented) 2680
Mupad [B] (verification not implemented) 2680

Optimal result

Integrand size = 17, antiderivative size = 58

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = \frac{1}{2}x\csc\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right) + \frac{1}{2}ix\cot\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\csc\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)$$

```
[Out] 1/2*x*csc(a+2*ln(c*x^(1/2*I)))+1/2*I*x*cot(a+2*ln(c*x^(1/2*I)))*csc(a+2*ln(
c*x^(1/2*I)))
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 51, normalized size of antiderivative = 0.88, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4600, 4602, 267}

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = -\frac{2ie^{ia}x\left(cx^{\frac{i}{2}}\right)^{2i}}{\left(1-e^{2ia}\left(cx^{\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[In] Int[Csc[a + 2*Log[c*x^(I/2)]]^3,x]
[Out] ((-2*I)*E^(I*a)*(c*x^(I/2))^(2*I)*x)/(1 - E^((2*I)*a)*(c*x^(I/2))^(4*I))^2
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= -\left(\left(2i\left(cx^{\frac{i}{2}}\right)^{2i}x\right)\text{Subst}\left(\int x^{-1-2i}\csc^3(a+2\log(x))\,dx,x,cx^{\frac{i}{2}}\right)\right)\\
&= \left(16e^{3ia}\left(cx^{\frac{i}{2}}\right)^{2i}x\right)\text{Subst}\left(\int\frac{x^{-1+4i}}{\left(1-e^{2ia}x^{4i}\right)^3}\,dx,x,cx^{\frac{i}{2}}\right)\\
&= -\frac{2ie^{ia}\left(cx^{\frac{i}{2}}\right)^{2i}x}{\left(1-e^{2ia}\left(cx^{\frac{i}{2}}\right)^{4i}\right)^2}
\end{aligned}
$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 137 vs. 2(58) = 116.

Time = 0.12 (sec) , antiderivative size = 137, normalized size of antiderivative = 2.36

$$
\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx
$$
$$
=\frac{\csc^2\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\left(i(-1+2x^2)\cos\left(a+2\log\left(cx^{\frac{i}{2}}\right)-i\log(x)\right)+(1+2x^2)\sin\left(a+2\log\left(cx^{\frac{i}{2}}\right)-i\right.}{2x^2}
$$

```
[In] Integrate[Csc[a + 2*Log[c*x^(I/2)]]^3,x]
```

```
[Out] (Csc[a + 2*Log[c*x^(I/2)]]^2*(I*(-1 + 2*x^2)*Cos[a + 2*Log[c*x^(I/2)] - I*L
og[x]] + (1 + 2*x^2)*Sin[a + 2*Log[c*x^(I/2)] - I*Log[x]])*(Cos[2*(a + 2*Lo
g[c*x^(I/2)] - I*Log[x])] + I*Sin[2*(a + 2*Log[c*x^(I/2)] - I*Log[x])]))/(2
*x^2)
```

Maple [A] (verified)

Time = 265.29 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.17

method	result
parallelrisch	$-\frac{x\left(i\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{i}{2}}\right)\right)^{4}-2\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{i}{2}}\right)\right)^{3}-i-2\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{i}{2}}\right)\right)\right)}{8\tan\left(\frac{a}{2}+\ln\left(c\,x^{\frac{i}{2}}\right)\right)^{2}}$
risch	$-\frac{2ix\left(x^{\frac{i}{2}}\right)^{2i}c^{2i}\mathrm{e}^{-\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}+\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)\operatorname{csgn}(ic)+\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{3}-\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}\operatorname{csgn}(ic)+\cdots}}{\left(c^{4i}\left(x^{\frac{i}{2}}\right)^{4i}\mathrm{e}^{-2\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}}\mathrm{e}^{2\operatorname{csgn}\left(ix^{\frac{i}{2}}\right)\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)\operatorname{csgn}(ic)}\mathrm{e}^{2\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{3}}\mathrm{e}^{-2\pi\operatorname{csgn}\left(ic\,x^{\frac{i}{2}}\right)^{2}\operatorname{csgn}(ic)}\mathrm{e}^{2i\cdots}\cdots\right.}$

```
[In] int(csc(a+2*ln(c*x^(1/2*I)))^3,x,method=_RETURNVERBOSE)
```

```
[Out] -1/8*x*(I*tan(1/2*a+ln(c*x^(1/2*I)))^4-2*tan(1/2*a+ln(c*x^(1/2*I)))^3-I-2*t
an(1/2*a+ln(c*x^(1/2*I))))/tan(1/2*a+ln(c*x^(1/2*I)))^2
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 57, normalized size of antiderivative = 0.98

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = -\frac{2\left(2i\,x^2e^{(3i\,a+6i\,\log(c))}-i\,e^{(5i\,a+10i\,\log(c))}\right)}{x^4-2\,x^2e^{(2i\,a+4i\,\log(c))}+e^{(4i\,a+8i\,\log(c))}}$$

```
[In] integrate(csc(a+2*log(c*x^(1/2*I)))^3,x, algorithm="fricas")
```

```
[Out] -2*(2*I*x^2*e^(3*I*a + 6*I*log(c)) - I*e^(5*I*a + 10*I*log(c)))/(x^4 - 2*x^
2*e^(2*I*a + 4*I*log(c)) + e^(4*I*a + 8*I*log(c)))
```

Sympy [F]

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = \int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx$$

```
[In] integrate(csc(a+2*ln(c*x**(1/2*I)))**3,x)
```

```
[Out] Integral(csc(a + 2*log(c*x**(I/2)))**3, x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 153 vs. 2(40) = 80.

Time = 0.26 (sec) , antiderivative size = 153, normalized size of antiderivative = 2.64

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = -\frac{2\,((i\,\cos(a)-\sin(a))\cos(2\,\log(c))-(\cos(a$$
$$\overline{(\cos(4\,a)+i\,\sin(4\,a))\cos(8\,\log(c))-2\,((\cos(2\,a)+i\,\sin(2\,a))\cos(4\,\log(c))+(i\,\cos(2\,a)-\sin(2\,a))}$$

```
[In] integrate(csc(a+2*log(c*x^(1/2*I)))^3,x, algorithm="maxima")
```

```
[Out] -2*((I*cos(a) - sin(a))*cos(2*log(c)) - (cos(a) + I*sin(a))*sin(2*log(c)))*
x*e^(6*arctan2(sin(1/2*log(x)), cos(1/2*log(x))))/((cos(4*a) + I*sin(4*a))*
cos(8*log(c)) - 2*((cos(2*a) + I*sin(2*a))*cos(4*log(c)) + (I*cos(2*a) - si
n(2*a))*sin(4*log(c)))*e^(4*arctan2(sin(1/2*log(x)), cos(1/2*log(x)))) + (I
*cos(4*a) - sin(4*a))*sin(8*log(c)) + e^(8*arctan2(sin(1/2*log(x)), cos(1/2
*log(x)))))
```

Giac [A] (verification not implemented)

none

Time = 1.11 (sec) , antiderivative size = 74, normalized size of antiderivative = 1.28

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = \frac{2i\,c^{10i}e^{(5i\,a)}}{c^{8i}e^{(4i\,a)}-2\,c^{4i}x^2e^{(2i\,a)}+x^4}-\frac{4i\,c^{6i}x^2e^{(3i\,a)}}{c^{8i}e^{(4i\,a)}-2\,c^{4i}x^2e^{(2i\,a)}+x^4}$$

```
[In] integrate(csc(a+2*log(c*x^(1/2*I)))^3,x, algorithm="giac")
```

```
[Out] 2*I*c^(10*I)*e^(5*I*a)/(c^(8*I)*e^(4*I*a) - 2*c^(4*I)*x^2*e^(2*I*a) + x^4)
- 4*I*c^(6*I)*x^2*e^(3*I*a)/(c^(8*I)*e^(4*I*a) - 2*c^(4*I)*x^2*e^(2*I*a) +
x^4)
```

Mupad [B] (verification not implemented)

Time = 28.87 (sec) , antiderivative size = 55, normalized size of antiderivative = 0.95

$$\int \csc^3\left(a+2\log\left(cx^{\frac{i}{2}}\right)\right)\,dx = -\frac{x\,\mathrm{e}^{a\,1\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{2\mathrm{i}}\,2\mathrm{i}}{1+\mathrm{e}^{a\,4\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{8\mathrm{i}}-2\,\mathrm{e}^{a\,2\mathrm{i}}\,{\left(c\,x^{\frac{1}{2}\mathrm{i}}\right)}^{4\mathrm{i}}}$$

```
[In] int(1/sin(a + 2*log(c*x^(1i/2)))^3,x)
```

```
[Out] -(x*exp(a*1i)*(c*x^(1i/2))^2i*2i)/(exp(a*4i)*(c*x^(1i/2))^8i - 2*exp(a*2i)*
(c*x^(1i/2))^4i + 1)
```

3.305 $\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$

Optimal result 2681
Rubi [A] (verified) 2681
Mathematica [B] (verified) 2682
Maple [A] (verified) 2683
Fricas [B] (verification not implemented) 2683
Sympy [F] 2683
Maxima [B] (verification not implemented) 2684
Giac [B] (verification not implemented) 2684
Mupad [B] (verification not implemented) 2685

Optimal result

Integrand size = 17, antiderivative size = 51

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{2ie^{3ia}\left(cx^{-\frac{i}{2}}\right)^{6i}x}{\left(1-e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[Out] 2*I*exp(3*I*a)*(c/(x^(1/2*I)))^(6*I)*x/(1-exp(2*I*a)*(c/(x^(1/2*I)))^(4*I))
^2
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 51, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.176, Rules used = {4600, 4602, 270}

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{2ie^{3ia}x\left(cx^{-\frac{i}{2}}\right)^{6i}}{\left(1-e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}$$

```
[In] Int[Csc[a + 2*Log[c/x^(I/2)]]^3,x]
```

```
[Out] ((2*I)*E^((3*I)*a)*(c/x^(I/2))^(6*I)*x)/(1 - E^((2*I)*a)*(c/x^(I/2))^(4*I))
^2
```

Rule 270

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*
x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] /; FreeQ[{a, b, c, m, n,
```

```
p}, x] && EqQ[(m + 1)/n + p + 1, 0] && NeQ[m, -1]
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \left(2i\left(cx^{-\frac{i}{2}}\right)^{-2i}x\right)\text{Subst}\left(\int x^{-1+2i}\csc^3(a+2\log(x))\,dx,x,cx^{-\frac{i}{2}}\right)\\
&= -\left(\left(16e^{3ia}\left(cx^{-\frac{i}{2}}\right)^{-2i}x\right)\text{Subst}\left(\int\frac{x^{-1+8i}}{(1-e^{2ia}x^{4i})^3}\,dx,x,cx^{-\frac{i}{2}}\right)\right)\\
&= \frac{2ie^{3ia}\left(cx^{-\frac{i}{2}}\right)^{6i}x}{\left(1-e^{2ia}\left(cx^{-\frac{i}{2}}\right)^{4i}\right)^2}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 137 vs. 2(51) = 102.

Time = 0.12 (sec) , antiderivative size = 137, normalized size of antiderivative = 2.69

$$\int\csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx = -\frac{\csc^2\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\left((-1+2x^2)\cos\left(a+2\log\left(cx^{-\frac{i}{2}}\right)+i\log(x)\right)+i(1+2x^2)\sin\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right.\right.}{2x^2}$$

```
[In] Integrate[Csc[a + 2*Log[c/x^(I/2)]]^3,x]
```

```
[Out] -1/2*(Csc[a + 2*Log[c/x^(I/2)]]^2*((-1 + 2*x^2)*Cos[a + 2*Log[c/x^(I/2)] +
I*Log[x]] + I*(1 + 2*x^2)*Sin[a + 2*Log[c/x^(I/2)] + I*Log[x]])*(I*Cos[2*(a
 + 2*Log[c/x^(I/2)] + I*Log[x])] + Sin[2*(a + 2*Log[c/x^(I/2)] + I*Log[x])]
))/x^2
```

Maple [A] (verified)

Time = 261.68 (sec) , antiderivative size = 68, normalized size of antiderivative = 1.33

method	result
parallelrisch	$\frac{x\left(i\tan\left(\frac{a}{2}+\ln\left(c\,x^{-\frac{i}{2}}\right)\right)^{4}+2\tan\left(\frac{a}{2}+\ln\left(c\,x^{-\frac{i}{2}}\right)\right)^{3}+2\tan\left(\frac{a}{2}+\ln\left(c\,x^{-\frac{i}{2}}\right)\right)-i\right)}{8\tan\left(\frac{a}{2}+\ln\left(c\,x^{-\frac{i}{2}}\right)\right)^{2}}$
risch	$\frac{2ix\left(x^{\frac{i}{2}}\right)^{-6i}c^{6i}\mathrm{e}^{-3\pi\,\mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}+3\pi\,\mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)\mathrm{csgn}(ic)+3\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{3}-3\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)}}{\left(\left(x^{\frac{i}{2}}\right)^{-4i}c^{4i}\mathrm{e}^{2\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{3}}\mathrm{e}^{-2\pi\,\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}\mathrm{csgn}(ic)}\mathrm{e}^{-2\pi\,\mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)^{2}}\mathrm{e}^{2\pi\,\mathrm{csgn}\left(ix^{-\frac{i}{2}}\right)\mathrm{csgn}\left(ic\,x^{-\frac{i}{2}}\right)\mathrm{cs}}\right.}$

```
[In] int(csc(a+2*ln(c/(x^(1/2*I))))^3,x,method=_RETURNVERBOSE)
[Out] 1/8*x*(I*tan(1/2*a+ln(c*x^(-1/2*I)))^4+2*tan(1/2*a+ln(c*x^(-1/2*I)))^3+2*ta
n(1/2*a+ln(c*x^(-1/2*I)))-I)/tan(1/2*a+ln(c*x^(-1/2*I)))^2
```

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 57 vs. 2(27) = 54.

Time = 0.24 (sec) , antiderivative size = 57, normalized size of antiderivative = 1.12

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=-\frac{2\left(-2i\,x^2e^{(2i\,a+4i\,\log(c))}+i\right)}{x^4e^{(5i\,a+10i\,\log(c))}-2\,x^2e^{(3i\,a+6i\,\log(c))}+e^{(i\,a+2i\,\log(c))}}$$

```
[In] integrate(csc(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="fricas")
[Out] -2*(-2*I*x^2*e^(2*I*a + 4*I*log(c)) + I)/(x^4*e^(5*I*a + 10*I*log(c)) - 2*x
^2*e^(3*I*a + 6*I*log(c)) + e^(I*a + 2*I*log(c)))
```

Sympy [F]

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$$

```
[In] integrate(csc(a+2*ln(c/(x**(1/2*I))))**3,x)
[Out] Integral(csc(a + 2*log(c/x**(I/2)))**3, x)
```

Maxima [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 162 vs. 2(27) = 54.

Time = 0.26 (sec) , antiderivative size = 162, normalized size of antiderivative = 3.18

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx$$
$$= \frac{2\left(\left(i\,\cos\left(3\,a\right)-\sin\left(3\,a\right)\right)\cos\left(6\,\log\left(c\right)\right)-\left(\cos\left(\right.\right.\right.}{\left(\left(\cos\left(4\,a\right)+i\,\sin\left(4\,a\right)\right)\cos\left(8\,\log\left(c\right)\right)-\left(-i\,\cos\left(4\,a\right)+\sin\left(4\,a\right)\right)\sin\left(8\,\log\left(c\right)\right)\right)e^{\left(8\,\arctan\left(\sin\left(\frac{1}{2}\,\log\left(x\right)\right),\cos\left(\frac{1}{2}\,\log\left(\right.\right.\right.\right.}}$$

```
[In] integrate(csc(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="maxima")
```

```
[Out] 2*((I*cos(3*a) - sin(3*a))*cos(6*log(c)) - (cos(3*a) + I*sin(3*a))*sin(6*lo
g(c)))*x*e^(6*arctan2(sin(1/2*log(x)), cos(1/2*log(x))))/(((cos(4*a) + I*si
n(4*a))*cos(8*log(c)) - (-I*cos(4*a) + sin(4*a))*sin(8*log(c)))*e^(8*arctan
2(sin(1/2*log(x)), cos(1/2*log(x)))) - 2*((cos(2*a) + I*sin(2*a))*cos(4*log
(c)) - (-I*cos(2*a) + sin(2*a))*sin(4*log(c)))*e^(4*arctan2(sin(1/2*log(x))
, cos(1/2*log(x)))) + 1)
```

Giac [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 83 vs. 2(27) = 54.

Time = 1.13 (sec) , antiderivative size = 83, normalized size of antiderivative = 1.63

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx = \frac{4i\,c^{4i}x^2e^{(2i\,a)}}{c^{10i}x^4e^{(5i\,a)}-2\,c^{6i}x^2e^{(3i\,a)}+c^{2i}e^{(i\,a)}} - \frac{2i}{c^{10i}x^4e^{(5i\,a)}-2\,c^{6i}x^2e^{(3i\,a)}+c^{2i}e^{(i\,a)}}$$

```
[In] integrate(csc(a+2*log(c/(x^(1/2*I))))^3,x, algorithm="giac")
```

```
[Out] 4*I*c^(4*I)*x^2*e^(2*I*a)/(c^(10*I)*x^4*e^(5*I*a) - 2*c^(6*I)*x^2*e^(3*I*a)
 + c^(2*I)*e^(I*a)) - 2*I/(c^(10*I)*x^4*e^(5*I*a) - 2*c^(6*I)*x^2*e^(3*I*a)
 + c^(2*I)*e^(I*a))
```

Mupad [B] (verification not implemented)

Time = 31.43 (sec) , antiderivative size = 38, normalized size of antiderivative = 0.75

$$\int \csc^3\left(a+2\log\left(cx^{-\frac{i}{2}}\right)\right)\,dx=\frac{x\,\mathrm{e}^{a\,3\mathrm{i}}\,{\left(\frac{c}{x^{\frac{1}{2}\mathrm{i}}}\right)}^{6\mathrm{i}}\,2\mathrm{i}}{{\left(\mathrm{e}^{a\,2\mathrm{i}}\,{\left(\frac{c}{x^{\frac{1}{2}\mathrm{i}}}\right)}^{4\mathrm{i}}-1\right)}^2}$$

```
[In] int(1/sin(a + 2*log(c/x^(1i/2)))^3,x)
[Out] (x*exp(a*3i)*(c/x^(1i/2))^6i*2i)/(exp(a*2i)*(c/x^(1i/2))^4i - 1)^2
```

3.306 $\int \csc^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx$

Optimal result . . . 2686
Rubi [A] (verified) . . . 2686
Mathematica [A] (warning: unable to verify) . . . 2687
Maple [F] . . . 2688
Fricas [A] (verification not implemented) . . . 2688
Sympy [F] . . . 2688
Maxima [F] . . . 2689
Giac [F] . . . 2689
Mupad [F(-1)] . . . 2689

Optimal result

Integrand size = 23, antiderivative size = 96

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = -\frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1-e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\csc^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[Out] -1/2*(2-p)*x*(1-exp(2*I*a)*(c*x^n)^(2/n/(2-p)))*csc(a-I*ln(c*x^n)/n/(2-p))^
p/exp(2*I*a)/(1-p)/((c*x^n)^(2/n/(2-p)))
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 96, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4600, 4604, 267}

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = -\frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1-e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\csc^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[In] Int[Csc[a + (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] -1/2*((2 - p)*x*(1 - E^((2*I)*a)*(c*x^n)^(2/(n*(2 - p))))*Csc[a - (I*Log[c*
x^n])/(n*(2 - p))]^p)/(E^((2*I)*a)*(1 - p)*(c*x^n)^(2/(n*(2 - p))))
```

Rule 267

```
Int[(x_)^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(a + b*x^n)
^(p + 1)/(b*n*(p + 1)), x] /; FreeQ[{a, b, m, n, p}, x] && EqQ[m, n - 1] &&
 NeQ[p, -1]
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^p\left(a+\frac{i\log(x)}{n(-2+p)}\right)\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}+\frac{p}{n(-2+p)}}\left(1-e^{2ia}(cx^n)^{-\frac{2}{n(-2+p)}}\right)^p\csc^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}-\frac{p}{n(-2+p)}}\left(1-e^{2ia}\right.\right.}{n}$$

$$= -\frac{e^{-2ia}(2-p)x(cx^n)^{-\frac{2}{n(2-p)}}\left(1-e^{2ia}(cx^n)^{\frac{2}{n(2-p)}}\right)\csc^p\left(a-\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

Mathematica [A] (warning: unable to verify)

Time = 1.32 (sec) , antiderivative size = 155, normalized size of antiderivative = 1.61

$$\int\csc^p\left(a+\frac{i\log(cx^n)}{n(-2+p)}\right)\,dx = \frac{2^{-1+p}e^{-\frac{2iap}{-2+p}}(-2+p)x\left(e^{\frac{2iap}{-2+p}}-e^{\frac{4ia}{-2+p}}(cx^n)^{\frac{2}{n(-2+p)}}\right)\left(-\frac{ie^{\frac{ia(2+p)}{-2+p}}(cx^n)^{\frac{1}{n(-2+p)}}}{-e^{\frac{2iap}{-2+p}}+e^{\frac{4ia}{-2+p}}(cx^n)^{\frac{2}{n(-2+p)}}}\right)^p}{-1+p}$$

```
[In] Integrate[Csc[a + (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] (2^(-1 + p)*(-2 + p)*x*(E^(((2*I)*a*p)/(-2 + p)) - E^(((4*I)*a)/(-2 + p))*(
c*x^n)^(2/(n*(-2 + p))))*(((-I)*E^((I*a*(2 + p))/(-2 + p))*(c*x^n)^(1/(n*(-
2 + p))))/(-E^(((2*I)*a*p)/(-2 + p)) + E^(((4*I)*a)/(-2 + p))*(c*x^n)^(2/(n
*(-2 + p)))))^p)/(E^(((2*I)*a*p)/(-2 + p))*(-1 + p))
```

Maple [F]

$$\int \csc\left(a+\frac{i\ln\left(c\,x^{n}\right)}{n\left(-2+p\right)}\right)^{p}dx$$

```
[In] int(csc(a+I*ln(c*x^n)/n/(-2+p))^p,x)
```

```
[Out] int(csc(a+I*ln(c*x^n)/n/(-2+p))^p,x)
```

Fricas [A] (verification not implemented)

none

Time = 0.24 (sec) , antiderivative size = 150, normalized size of antiderivative = 1.56

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = \frac{\left((p-2)xe^{\left(\frac{2\,(i\,anp-2i\,an-n\,\log(x)-\log(c))}{np-2\,n}\right)}-(p-2)x\right)\left(\frac{2i\,e^{\left(\frac{i\,anp-2i\,an-n\,\log(x)-\log(c)}{np-2\,n}\right)}}{e^{\left(\frac{2\,(i\,anp-2i\,an-n\,\log(x)-\log(c))}{np-2\,n}\right)}-1}\right)^{p}e^{\left(-\frac{2\,(i\,anp-2i\,an-n\,\log(x)-\log(c))}{np-2\,n}\right)}}{2\,(p-1)}$$

```
[In] integrate(csc(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="fricas")
```

```
[Out] 1/2*((p - 2)*x*e^(2*(I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) -
(p - 2)*x)*(2*I*e^((I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(e^
(2*(I*a*n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) - 1))^p*e^(-2*(I*a*
n*p - 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(p - 1)
```

Sympy [F]

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx = \int \csc^{p}\left(a+\frac{i\log\left(cx^{n}\right)}{n\left(p-2\right)}\right)\,dx$$

```
[In] integrate(csc(a+I*ln(c*x**n)/n/(-2+p))**p,x)
```

```
[Out] Integral(csc(a + I*log(c*x**n)/(n*(p - 2)))**p, x)
```

Maxima [F]

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \csc\left(a+\frac{i\log\left(cx^n\right)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(csc(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="maxima")
[Out] integrate(csc(a + I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Giac [F]

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \csc\left(a+\frac{i\log\left(cx^n\right)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(csc(a+I*log(c*x^n)/n/(-2+p))^p,x, algorithm="giac")
[Out] integrate(csc(a + I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^p\left(a+\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \left(\frac{1}{\sin\left(a+\frac{\ln(c\,x^n)\,1\mathrm{i}}{n\,(p-2)}\right)}\right)^p\,dx$$

```
[In] int((1/sin(a + (log(c*x^n)*1i)/(n*(p - 2))))^p,x)
[Out] int((1/sin(a + (log(c*x^n)*1i)/(n*(p - 2))))^p, x)
```

3.307 $\int \csc^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right) dx$

Optimal result . . . 2690
Rubi [A] (verified) . . . 2690
Mathematica [A] (verified) . . . 2691
Maple [F] . . . 2692
Fricas [B] (verification not implemented) . . . 2692
Sympy [F] . . . 2692
Maxima [F] . . . 2693
Giac [F] . . . 2693
Mupad [F(-1)] . . . 2693

Optimal result

Integrand size = 23, antiderivative size = 71

$$\int \csc^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right) dx=\frac{(2-p)x\left(1-e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\csc^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[Out] 1/2*(2-p)*x*(1-exp(2*I*a)/((c*x^n)^(2/n/(2-p))))*csc(a+I*ln(c*x^n)/n/(2-p))
^p/(1-p)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 71, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.130, Rules used = {4600, 4604, 270}

$$\int \csc^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right) dx=\frac{(2-p)x\left(1-e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\csc^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

```
[In] Int[Csc[a - (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] ((2 - p)*x*(1 - E^((2*I)*a)/(c*x^n)^(2/(n*(2 - p))))*Csc[a + (I*Log[c*x^n])
/(n*(2 - p))]^p)/(2*(1 - p))
```

Rule 270

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[(c*
x)^(m + 1)*((a + b*x^n)^(p + 1)/(a*c*(m + 1))), x] /; FreeQ[{a, b, c, m, n,
 p}, x] && EqQ[(m + 1)/n + p + 1, 0] && NeQ[m, -1]
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^p\left(a-\frac{i\log(x)}{n(-2+p)}\right)dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}-\frac{p}{n(-2+p)}}\left(1-e^{2ia}(cx^n)^{\frac{2}{n(-2+p)}}\right)^p\csc^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}+\frac{p}{n(-2+p)}}\left(1-e^{2ia}x\right.\right.}{n}$$

$$= \frac{(2-p)x\left(1-e^{2ia}(cx^n)^{-\frac{2}{n(2-p)}}\right)\csc^p\left(a+\frac{i\log(cx^n)}{n(2-p)}\right)}{2(1-p)}$$

Mathematica [A] (verified)

Time = 2.14 (sec) , antiderivative size = 128, normalized size of antiderivative = 1.80

$$\int \csc^p\left(a-\frac{i\log(cx^n)}{n(-2+p)}\right)dx = \frac{2^{-1+p}(-2+p)x\left(\frac{ie^{ia}(cx^n)^{\frac{1}{n(-2+p)}}}{-1+e^{2ia}(cx^n)^{\frac{2}{n(-2+p)}}}\right)^p\left(1+e^{2ia}(cx^n)^{\frac{2}{n(-2+p)}}\left(-1+\left(1-e^{-2ia}(cx^n)^{-\frac{2}{n(-2+p)}}\right)^p\right)\right)}{-1+p}$$

```
[In] Integrate[Csc[a - (I*Log[c*x^n])/(n*(-2 + p))]^p,x]
```

```
[Out] (2^(-1 + p)*(-2 + p)*x*((I*E^(I*a)*(c*x^n)^(1/(n*(-2 + p))))/(-1 + E^((2*I)
*a)*(c*x^n)^(2/(n*(-2 + p)))))^p*(1 + E^((2*I)*a)*(c*x^n)^(2/(n*(-2 + p)))*
(-1 + (1 - 1/(E^((2*I)*a)*(c*x^n)^(2/(n*(-2 + p)))))^p)))/(-1 + p)
```

Maple [F]

$$\int \csc\left(a-\frac{i\ln\left(c\,x^{n}\right)}{n\left(-2+p\right)}\right)^{p}dx$$

[In] int(csc(a-I*ln(c*x^n)/n/(-2+p))^p,x)

[Out] int(csc(a-I*ln(c*x^n)/n/(-2+p))^p,x)

Fricas [B] (verification not implemented)

Both result and optimal contain complex but leaf count of result is larger than twice the leaf count of optimal. 150 vs. $2(55) = 110$.

Time = 0.26 (sec) , antiderivative size = 150, normalized size of antiderivative = 2.11

$$\int \csc^{p}\left(a-\frac{i\log\left(cx^{n}\right)}{n(-2+p)}\right)\,dx$$
$$=\frac{\left((p-2)xe^{\left(\frac{2\,(-i\,anp+2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}-(p-2)x\right)\left(-\frac{2i\,e^{\left(\frac{-i\,anp+2i\,an-n\log(x)-\log(c)}{np-2\,n}\right)}}{e^{\left(\frac{2\,(-i\,anp+2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}-1}\right)^{p}e^{\left(-\frac{2\,(-i\,anp+2i\,an-n\log(x)-\log(c))}{np-2\,n}\right)}}{2\,(p-1)}$$

[In] integrate(csc(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="fricas")

[Out] 1/2*((p - 2)*x*e^(2*(-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) - (p - 2)*x)*(-2*I*e^((-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(e^(2*(-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n)) - 1))^p*e^(-2*(-I*a*n*p + 2*I*a*n - n*log(x) - log(c))/(n*p - 2*n))/(p - 1)

Sympy [F]

$$\int \csc^{p}\left(a-\frac{i\log\left(cx^{n}\right)}{n(-2+p)}\right)\,dx=\int \csc^{p}\left(a-\frac{i\log\left(cx^{n}\right)}{n\left(p-2\right)}\right)dx$$

[In] integrate(csc(a-I*ln(c*x**n)/n/(-2+p))**p,x)

[Out] Integral(csc(a - I*log(c*x**n)/(n*(p - 2)))**p, x)

Maxima [F]

$$\int \csc^p\left(a-\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \csc\left(a-\frac{i\,\log\left(cx^n\right)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(csc(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="maxima")
[Out] integrate((-csc(-a + I*log(c*x^n)/(n*(p - 2))))^p, x)
```

Giac [F]

$$\int \csc^p\left(a-\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \csc\left(a-\frac{i\,\log\left(cx^n\right)}{n(p-2)}\right)^p\,dx$$

```
[In] integrate(csc(a-I*log(c*x^n)/n/(-2+p))^p,x, algorithm="giac")
[Out] integrate(csc(a - I*log(c*x^n)/(n*(p - 2)))^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^p\left(a-\frac{i\log\left(cx^n\right)}{n(-2+p)}\right)\,dx=\int \left(\frac{1}{\sin\left(a-\frac{\ln(c\,x^n)\,1\mathrm{i}}{n\,(p-2)}\right)}\right)^p\,dx$$

```
[In] int((1/sin(a - (log(c*x^n)*1i)/(n*(p - 2))))^p,x)
[Out] int((1/sin(a - (log(c*x^n)*1i)/(n*(p - 2))))^p, x)
```

3.308 $\int \sqrt{\csc (a+b \log (c x^n))} \, dx$

Optimal result 2694
Rubi [A] (verified) 2694
Mathematica [A] (verified) 2695
Maple [F] 2696
Fricas [F(-2)] 2696
Sympy [F] 2696
Maxima [F] 2696
Giac [F] 2697
Mupad [F(-1)] 2697

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \sqrt{\csc (a+b \log (c x^n))} \, dx = \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc (a+b\log (cx^n))}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{2+ibn}$$

```
[Out] 2*x*hypergeom([1/2, 1/4-1/2*I/b/n],[5/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*
b))*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)*csc(a+b*ln(c*x^n))^(1/2)/(2+I*b*n)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4600, 4604, 371}

$$\int \sqrt{\csc (a+b \log (c x^n))} \, dx = \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\sqrt{\csc (a+b\log (cx^n))}}{2+ibn}$$

```
[In] Int[Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Csc[a + b*Log[c*x^n]]]*Hy
pergeometric2F1[1/2, (1 - (2*I)/(b*n))/4, (5 - (2*I)/(b*n))/4, E^((2*I)*a)*
(c*x^n)^((2*I)*b)])/(2 + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\sqrt{\csc(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{ib}{2}-\frac{1}{n}}\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{ib}{2}+\frac{1}{n}}}{\sqrt{1-e^{2ia}x^{2ib}}}\,dx,x,cx^n\right)}{n}$$

$$= \frac{2x\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{1}{4}\left(1-\frac{2i}{bn}\right),\frac{1}{4}\left(5-\frac{2i}{bn}\right),e^{2ia}(cx$$

Mathematica [A] (verified)

Time = 0.34 (sec) , antiderivative size = 115, normalized size of antiderivative = 1.06

$$\int\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,dx$$

$$= \frac{2ie^{-2ia}\left(-1+e^{2i(a+b\log(cx^n))}\right)x(cx^n)^{-2ib}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(1,\frac{3}{4}+\frac{i}{2bn},\frac{5}{4}+\frac{i}{2bn},e^{-}\right.}{2i+bn}$$

```
[In] Integrate[Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] ((2*I)*(-1 + E^((2*I)*(a + b*Log[c*x^n])))*x*Sqrt[Csc[a + b*Log[c*x^n]]]*Hy
pergeometric2F1[1, 3/4 + (I/2)/(b*n), 5/4 + (I/2)/(b*n), E^((-2*I)*(a + b*L
og[c*x^n]))])/(E^((2*I)*a)*(2*I + b*n)*(c*x^n)^((2*I)*b))
```

Maple [F]

$$\int \sqrt{\csc\left(a+b\ln\left(c\,x^{n}\right)\right)}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^(1/2),x)
[Out] int(csc(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(sqrt(csc(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \sqrt{\csc\left(b\log\left(cx^{n}\right)+a\right)}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(sqrt(csc(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \sqrt{\csc (a+b\log (cx^n))}\,dx=\int \sqrt{\csc (b\log (cx^n)+a)}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(sqrt(csc(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \sqrt{\csc (a+b\log (cx^n))}\,dx=\int \sqrt{\frac{1}{\sin (a+b\,\ln (c\,x^n))}}\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(1/2),x)
[Out] int((1/sin(a + b*log(c*x^n)))^(1/2), x)
```

3.309 $\int \frac{\sqrt{\csc(a+b\log(cx^n))}}{x}\,dx$

Optimal result 2698
Rubi [A] (verified) 2698
Mathematica [A] (verified) 2699
Maple [A] (verified) 2699
Fricas [C] (verification not implemented) 2700
Sympy [F] 2700
Maxima [F] 2700
Giac [F] 2701
Mupad [B] (verification not implemented) 2701

Optimal result

Integrand size = 19, antiderivative size = 59

$$\int \frac{\sqrt{\csc(a+b\log(cx^n))}}{x}\,dx = \frac{2\sqrt{\csc(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right),2\right)\sqrt{\sin(a+b\log(cx^n))}}{bn}$$

```
[Out] -2*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*
x^n))*EllipticF(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n
))^(1/2)*sin(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 59, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}} = 0.105$, Rules used = {3856, 2720}

$$\int \frac{\sqrt{\csc(a+b\log(cx^n))}}{x}\,dx = \frac{2\sqrt{\sin(a+b\log(cx^n))}\sqrt{\csc(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right),2\right)}{bn}$$

```
[In] Int[Sqrt[Csc[a + b*Log[c*x^n]]]/x,x]
```

```
[Out] (2*Sqrt[Csc[a + b*Log[c*x^n]]]*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sq
rt[Sin[a + b*Log[c*x^n]]])/(b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \sqrt{\csc(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{\left(\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right),2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.11 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.98

$$\int \frac{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx = -\frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{4}\left(-2a+\pi-2b\log\left(cx^n\right)\right),2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{bn}$$

```
[In] Integrate[Sqrt[Csc[a + b*Log[c*x^n]]]/x,x]
[Out] (-2*Sqrt[Csc[a + b*Log[c*x^n]]]*EllipticF[(-2*a + Pi - 2*b*Log[c*x^n])/4, 2
]*Sqrt[Sin[a + b*Log[c*x^n]]])/(b*n)
```

Maple [A] (verified)

Time = 1.20 (sec) , antiderivative size = 102, normalized size of antiderivative = 1.73

method	result	size
derivativedivides	$\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\text{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$	102
default	$\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\text{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$	102

```
[In] int(csc(a+b*ln(c*x^n))^(1/2)/x,x,method=_RETURNVERBOSE)
```

```
[Out] 1/n*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*
ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))/cos(a
+b*ln(c*x^n))/sin(a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 78, normalized size of antiderivative = 1.32

$$\int \frac{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx$$
$$= \frac{-i\sqrt{2i}\text{weierstrassPInverse}(4,0,\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+i\,\sin\left(bn\log\left(x\right)+b\log\left(c\right)+a\right))+i\sqrt{-2i}}{bn}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2)/x,x, algorithm="fricas")
```

```
[Out] (-I*sqrt(2*I)*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) + I*
sin(b*n*log(x) + b*log(c) + a)) + I*sqrt(-2*I)*weierstrassPInverse(4, 0, co
s(b*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx = \int \frac{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**(1/2)/x,x)
```

```
[Out] Integral(sqrt(csc(a + b*log(c*x**n)))/x, x)
```

Maxima [F]

$$\int \frac{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{x}\,dx = \int \frac{\sqrt{\csc\left(b\log\left(cx^n\right)+a\right)}}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2)/x,x, algorithm="maxima")
```

```
[Out] integrate(sqrt(csc(b*log(c*x^n) + a))/x, x)
```

Giac [F]

$$\int \frac{\sqrt{\csc (a+b\log (cx^n))}}{x}\,dx=\int \frac{\sqrt{\csc (b\log (cx^n)+a)}}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(1/2)/x,x, algorithm="giac")
[Out] integrate(sqrt(csc(b*log(c*x^n) + a))/x, x)
```

Mupad [B] (verification not implemented)

Time = 27.53 (sec) , antiderivative size = 89, normalized size of antiderivative = 1.51

$$\int \frac{\sqrt{\csc (a+b\log (cx^n))}}{x}\,dx = -\frac{2\sqrt{\sin (a+b\ln (c\,x^n))}\,\mathrm{F}\left(\mathrm{asin}\left(\frac{\sqrt{2}\,\sqrt{1-\sin(a+b\ln(c\,x^n))}}{2}\right)\middle|2\right)\,\sqrt{\cos (a+b\ln (c\,x^n))^2}\,\sqrt{\frac{1}{\sin(a+b\ln(c\,x^n))}}}{b\,n\,\cos (a+b\ln (c\,x^n))}$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(1/2)/x,x)
[Out] -(2*sin(a + b*log(c*x^n))^(1/2)*ellipticF(asin((2^(1/2)*(1 - sin(a + b*log(
c*x^n)))^(1/2))/2), 2)*(cos(a + b*log(c*x^n))^2)^(1/2)*(1/sin(a + b*log(c*x
^n)))^(1/2))/(b*n*cos(a + b*log(c*x^n)))
```

3.310 $\int \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result 2702
Rubi [A] (verified) 2702
Mathematica [B] (verified) 2703
Maple [F] 2704
Fricas [F(-2)] 2704
Sympy [F] 2704
Maxima [F] 2705
Giac [F(-1)] 2705
Mupad [F(-1)] 2705

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{2+3ibn}$$

```
[Out] 2*x*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*csc(a+b*ln(c*x^n))^(3/2)*hypergeom
([3/2, 3/4-1/2*I/b/n],[7/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+3*I*b*
n)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4600, 4604, 371}

$$\int \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\csc^{\frac{3}{2}}(a+b\log(cx^n))}{2+3ibn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Csc[a + b*Log[c*x^n]]^(3/2)*
Hypergeometric2F1[3/2, (3 - (2*I)/(b*n))/4, (7 - (2*I)/(b*n))/4, E^((2*I)*a
)*(c*x^n)^((2*I)*b)])/(2 + (3*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$=\frac{\left(x(cx^n)^{-\frac{3ib}{2}-\frac{1}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int\frac{x^{-1+\frac{3ib}{2}+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{3/2}}\,dx,x,cx^n\right)}{n}$$

$$=\frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i}{bn}\right),\frac{1}{4}\left(7-\frac{2i}{bn}\right),e^{2ia}(c\right.}{2+3ibn}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 411 vs. 2(109) = 218.

Time = 4.68 (sec) , antiderivative size = 411, normalized size of antiderivative = 3.77

$$\int\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$=\frac{x\left(\left(4+b^2n^2\right)x^{ibn}\sqrt{2-2e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}}\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},e^{2ia}(cx^n)^{2ib}\right.\right.}{}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (x*((4 + b^2*n^2)*x^(I*b*n)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[
(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Hypergeomet
ric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I
)*b)] - ((-2*I + 3*b*n)*((2*I - b*n)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*
b)]*Sqrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Hy
pergeometric2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), E^((2*I)*a)
*(c*x^n)^((2*I)*b)] + 2*x^(I*b*n)*Sqrt[Csc[a + b*Log[c*x^n]]]*(b*n*Cos[b*n*
Log[x]] - 2*Sin[b*n*Log[x]])))/x^(I*b*n)))/(b*n*(-2*I + 3*b*n)*(b*n*Cos[a -
 b*n*Log[x] + b*Log[c*x^n]] + 2*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \csc \left(a+b\ln \left(c\,x^{n}\right)\right)^{\frac{3}{2}}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(csc(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F]

$$\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(csc(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\int \csc\left(b\log\left(cx^n\right)+a\right)^{\frac{3}{2}}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Timed out}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\int {\left(\frac{1}{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)}^{3/2}\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(3/2),x)
[Out] int((1/sin(a + b*log(c*x^n)))^(3/2), x)
```

3.311 $\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx$

Optimal result 2706
Rubi [A] (verified) 2706
Mathematica [A] (verified) 2708
Maple [A] (verified) 2708
Fricas [C] (verification not implemented) 2708
Sympy [F] 2709
Maxima [F] 2709
Giac [F(-1)] 2709
Mupad [F(-1)] 2710

Optimal result

Integrand size = 19, antiderivative size = 94

$$\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\cos(a+b\log(cx^n))\sqrt{\csc(a+b\log(cx^n))}}{bn} - \frac{2\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}}{bn}$$

```
[Out] -2*cos(a+b*ln(c*x^n))*csc(a+b*ln(c*x^n))^(1/2)/b/n+2*(sin(1/2*a+1/4*Pi+1/2*
b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))*EllipticE(cos(1/2*a
+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n))^(1/2)*sin(a+b*ln(c*x^n
))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 94, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {3853, 3856, 2719}

$$\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\cos(a+b\log(cx^n))\sqrt{\csc(a+b\log(cx^n))}}{bn} - \frac{2\sqrt{\sin(a+b\log(cx^n))}\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right)\middle|2\right)}{bn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(3/2)/x,x]
```

```
[Out] (-2*Cos[a + b*Log[c*x^n]]*Sqrt[Csc[a + b*Log[c*x^n]]])/(b*n) - (2*Sqrt[Csc[
a + b*Log[c*x^n]]]*EllipticE[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sqrt[Sin[a + b
*Log[c*x^n]]])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \csc^{\frac{3}{2}}(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{bn} - \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\csc(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{bn}\\
&\quad -\frac{\left(\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \sqrt{\sin(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}{bn}\\
&\quad -\frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right)\middle|2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.13 (sec) , antiderivative size = 72, normalized size of antiderivative = 0.77

$$\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\sqrt{\csc(a+b\log(cx^n))}\left(\cos(a+b\log(cx^n)) - E\left(\frac{1}{4}(-2a+\pi-2b\log(cx^n))\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}\right)}{bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(3/2)/x,x]
[Out] (-2*Sqrt[Csc[a + b*Log[c*x^n]]]*(Cos[a + b*Log[c*x^n]] - EllipticE[(-2*a + Pi - 2*b*Log[c*x^n])/4, 2]*Sqrt[Sin[a + b*Log[c*x^n]]]))/(b*n)
```

Maple [A] (verified)

Time = 1.32 (sec) , antiderivative size = 190, normalized size of antiderivative = 2.02

method	result
derivativedivides	$\frac{2\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\,\mathrm{EllipticE}\left(\sqrt{\sin(a+b\ln(cx^n))+1},\frac{\sqrt{2}}{2}\right)-\sqrt{\sin(a}}{n\cos(a+b\ln(cx^n)}$
default	$\frac{2\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\,\mathrm{EllipticE}\left(\sqrt{\sin(a+b\ln(cx^n))+1},\frac{\sqrt{2}}{2}\right)-\sqrt{\sin(a}}{n\cos(a+b\ln(cx^n)}$

```
[In] int(csc(a+b*ln(c*x^n))^(3/2)/x,x,method=_RETURNVERBOSE)
[Out] 1/n*(2*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*EllipticE((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-2*cos(a+b*ln(c*x^n))^2)/cos(a+b*ln(c*x^n))/sin(a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 111, normalized size of antiderivative = 1.18

$$\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{\sqrt{2i}\mathrm{weierstrassZeta}(4,0,\mathrm{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)+i\sin(bn\log(x)+b\log}{}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2)/x,x, algorithm="fricas")
```

```
[Out] -(sqrt(2*I)*weierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x)
+ b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) + sqrt(-2*I)*weierstra
ssZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) - I*s
in(b*n*log(x) + b*log(c) + a))) + 2*cos(b*n*log(x) + b*log(c) + a)/sqrt(sin
(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{\csc^{\frac{3}{2}}(a + b\log(cx^n))}{x} \, dx = \int \frac{\csc^{\frac{3}{2}}(a + b\log(cx^n))}{x} \, dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**(3/2)/x,x)
[Out] Integral(csc(a + b*log(c*x**n))**(3/2)/x, x)
```

Maxima [F]

$$\int \frac{\csc^{\frac{3}{2}}(a + b\log(cx^n))}{x} \, dx = \int \frac{\csc(b\log(cx^n) + a)^{\frac{3}{2}}}{x} \, dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2)/x,x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^(3/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\csc^{\frac{3}{2}}(a + b\log(cx^n))}{x} \, dx = \text{Timed out}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(3/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\csc^{\frac{3}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\left(\frac{1}{\sin(a+b\,\ln(c\,x^n))}\right)^{3/2}}{x}\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(3/2)/x,x)
[Out] int((1/sin(a + b*log(c*x^n)))^(3/2)/x, x)
```

3.312 $\int \csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx$

Optimal result 2711
Rubi [A] (verified) 2711
Mathematica [A] (verified) 2712
Maple [F] 2713
Fricas [F(-2)] 2713
Sympy [F(-1)] 2713
Maxima [F] 2713
Giac [F(-1)] 2714
Mupad [F(-1)] 2714

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{2+5ibn}$$

```
[Out] 2*x*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*csc(a+b*ln(c*x^n))^(5/2)*hypergeom
([5/2, 5/4-1/2*I/b/n],[9/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+5*I*b*
n)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4600, 4604, 371}

$$\int \csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)\csc^{\frac{5}{2}}(a+b\log(cx^n))}{2+5ibn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Csc[a + b*Log[c*x^n]]^(5/2)*
Hypergeometric2F1[5/2, (5 - (2*I)/(b*n))/4, (9 - (2*I)/(b*n))/4, E^((2*I)*a
)*(c*x^n)^((2*I)*b)])/(2 + (5*I)*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] && !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] && !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^{\frac{5}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{5ib}{2}-\frac{1}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ib}{2}+\frac{1}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{5/2}}\,dx,x,cx^n\right)}{n}$$

$$= \frac{2x\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i}{bn}\right),\frac{1}{4}\left(9-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{2+5ibn}$$

Mathematica [A] (verified)

Time = 1.17 (sec) , antiderivative size = 174, normalized size of antiderivative = 1.60

$$\int\csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx$$

$$= \frac{2e^{-2i(a-bn\log(x)+b\log(cx^n))}x^{1-2ibn}\sqrt{\csc(a+b\log(cx^n))}\left(-e^{2ia}(cx^n)^{2ib}(2+bn\cot(a+b\log(cx^n)))+(2+ibn\ldots\right.}{3b^2n^2}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(5/2),x]
[Out] (2*x^(1 - (2*I)*b*n)*Sqrt[Csc[a + b*Log[c*x^n]]]*(-(E^((2*I)*a)*(c*x^n)^((2
*I)*b)*(2 + b*n*Cot[a + b*Log[c*x^n]])) + (2 + I*b*n)*(-1 + E^((2*I)*a)*(c*
x^n)^((2*I)*b))*Hypergeometric2F1[1, 3/4 + (I/2)/(b*n), 5/4 + (I/2)/(b*n),
E^((-2*I)*(a + b*Log[c*x^n]))]))/(3*b^2*E^((2*I)*(a - b*n*Log[x] + b*Log[c*
x^n]))*n^2)
```

Maple [F]

$$\int \csc\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{5}{2}}dx$$

[In] int(csc(a+b*ln(c*x^n))^(5/2),x)

[Out] int(csc(a+b*ln(c*x^n))^(5/2),x)

Fricas [F(-2)]

Exception generated.

$$\int \csc^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\text{Exception raised: TypeError}$$

[In] integrate(csc(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integ
rate: implementation incomplete (constant residues)

Sympy [F(-1)]

Timed out.

$$\int \csc^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\text{Timed out}$$

[In] integrate(csc(a+b*ln(c*x**n))**(5/2),x)

[Out] Timed out

Maxima [F]

$$\int \csc^{\frac{5}{2}}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc\left(b\log\left(cx^{n}\right)+a\right)^{\frac{5}{2}}\,dx$$

[In] integrate(csc(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")

[Out] integrate(csc(b*log(c*x^n) + a)^(5/2), x)

Giac [F(-1)]

Timed out.

$$\int \csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \csc^{\frac{5}{2}}(a+b\log(cx^n))\,dx = \int \left(\frac{1}{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)^{5/2}\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(5/2),x)
[Out] int((1/sin(a + b*log(c*x^n)))^(5/2), x)
```

3.313 $\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx$

Optimal result 2715
Rubi [A] (verified) 2715
Mathematica [A] (verified) 2717
Maple [A] (verified) 2717
Fricas [C] (verification not implemented) 2717
Sympy [F(-1)] 2718
Maxima [F] 2718
Giac [F(-1)] 2718
Mupad [F(-1)] 2719

Optimal result

Integrand size = 19, antiderivative size = 98

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx = -\frac{2\cos(a+b\log(cx^n))\csc^{\frac{3}{2}}(a+b\log(cx^n))}{3bn} + \frac{2\sqrt{\csc(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right),2\right)\sqrt{\sin(a+b\log(cx^n))}}{3bn}$$

```
[Out] -2/3*cos(a+b*ln(c*x^n))*csc(a+b*ln(c*x^n))^(3/2)/b/n-2/3*(sin(1/2*a+1/4*Pi+
1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))*EllipticF(cos(1
/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n))^(1/2)*sin(a+b*ln(c
*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {3853, 3856, 2720}

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x} dx = \frac{2\sqrt{\sin(a+b\log(cx^n))}\sqrt{\csc(a+b\log(cx^n))}\,\text{EllipticF}\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right),2\right)}{3bn} - \frac{2\cos(a+b\log(cx^n))\csc^{\frac{3}{2}}(a+b\log(cx^n))}{3bn}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(5/2)/x,x]
```

```
[Out] (-2*Cos[a + b*Log[c*x^n]]*Csc[a + b*Log[c*x^n]]^(3/2))/(3*b*n) + (2*Sqrt[Cs
c[a + b*Log[c*x^n]]]*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sqrt[Sin[a +
 b*Log[c*x^n]]])/(3*b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3853

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[(-b)*Cos[c + d*
x]*((b*Csc[c + d*x])^(n - 1)/(d*(n - 1))), x] + Dist[b^2*((n - 2)/(n - 1)),
 Int[(b*Csc[c + d*x])^(n - 2), x], x] /; FreeQ[{b, c, d}, x] && GtQ[n, 1] &
& IntegerQ[2*n]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \csc^{\frac{5}{2}}(a+bx)\,dx, x, \log\left(cx^n\right)\right)}{n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{3bn}+\frac{\text{Subst}\left(\int \sqrt{\csc(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{3n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{3bn}\\
&\quad+\frac{\left(\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{3n}\\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}{3bn}\\
&\quad+\frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right),2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{3bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.17 (sec) , antiderivative size = 73, normalized size of antiderivative = 0.74

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = -\frac{2\csc^{\frac{3}{2}}(a+b\log(cx^n))\left(\cos(a+b\log(cx^n))+\text{EllipticF}\left(\frac{1}{4}(-2a+\pi-2b\log(cx^n)),2\right)\sin^{\frac{3}{2}}(a+b\log(cx^n))\right)}{3bn}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(5/2)/x,x]
[Out] (-2*Csc[a + b*Log[c*x^n]]^(3/2)*(Cos[a + b*Log[c*x^n]] + EllipticF[(-2*a +
Pi - 2*b*Log[c*x^n])/4, 2]*Sin[a + b*Log[c*x^n]]^(3/2)))/(3*b*n)
```

Maple [A] (verified)

Time = 1.45 (sec) , antiderivative size = 131, normalized size of antiderivative = 1.34

method	result
derivativedivides	$\frac{\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\,\text{EllipticF}\left(\sqrt{\sin(a+b\ln(cx^n))+1},\frac{\sqrt{2}}{2}\right)\sin(a+b\ln(cx^n))-2\cos(a+b\ln(cx^n))^2}{3n\sin(a+b\ln(cx^n))^{\frac{3}{2}}\cos(a+b\ln(cx^n))b}$
default	$\frac{\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\,\text{EllipticF}\left(\sqrt{\sin(a+b\ln(cx^n))+1},\frac{\sqrt{2}}{2}\right)\sin(a+b\ln(cx^n))-2\cos(a+b\ln(cx^n))^2}{3n\sin(a+b\ln(cx^n))^{\frac{3}{2}}\cos(a+b\ln(cx^n))b}$

```
[In] int(csc(a+b*ln(c*x^n))^(5/2)/x,x,method=_RETURNVERBOSE)
[Out] 1/3/n/sin(a+b*ln(c*x^n))^(3/2)*((sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln
(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))
+1)^(1/2),1/2*2^(1/2))*sin(a+b*ln(c*x^n))-2*cos(a+b*ln(c*x^n))^2)/cos(a+b*l
n(c*x^n))/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.08 (sec) , antiderivative size = 145, normalized size of antiderivative = 1.48

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \frac{-i\sqrt{2i}\sin(bn\log(x)+b\log(c)+a)\,\text{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)+i\,\sin(bn\log(x)+b\log(c)+a))\ldots}{\ldots}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(5/2)/x,x, algorithm="fricas")
```

```
[Out] 1/3*(-I*sqrt(2*I)*sin(b*n*log(x) + b*log(c) + a)*weierstrassPInverse(4, 0,
cos(b*n*log(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a)) + I*sqrt
(-2*I)*sin(b*n*log(x) + b*log(c) + a)*weierstrassPInverse(4, 0, cos(b*n*log
(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)) - 2*cos(b*n*log(x)
+ b*log(c) + a)/sqrt(sin(b*n*log(x) + b*log(c) + a)))/(b*n*sin(b*n*log(x) +
 b*log(c) + a))
```

Sympy [F(-1)]

Timed out.

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(csc(a+b*ln(c*x**n))**(5/2)/x,x)
[Out] Timed out
```

Maxima [F]

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\csc(b\log(cx^n)+a)^{\frac{5}{2}}}{x}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^(5/2)/x,x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^(5/2)/x, x)
```

Giac [F(-1)]

Timed out.

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \text{Timed out}$$

```
[In] integrate(csc(a+b*log(c*x^n))^(5/2)/x,x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int \frac{\csc^{\frac{5}{2}}(a+b\log(cx^n))}{x}\,dx = \int \frac{\left(\frac{1}{\sin(a+b\,\ln(c\,x^n))}\right)^{5/2}}{x}\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^(5/2)/x,x)
[Out] int((1/sin(a + b*log(c*x^n)))^(5/2)/x, x)
```

3.314 $\int \frac{1}{\sqrt{\csc(a+b\log(cx^n))}}\,dx$

Optimal result 2720
Rubi [A] (verified) 2720
Mathematica [B] (verified) 2721
Maple [F] 2722
Fricas [F(-2)] 2722
Sympy [F] 2722
Maxima [F] 2723
Giac [F] 2723
Mupad [F(-1)] 2723

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \frac{1}{\sqrt{\csc(a+b\log(cx^n))}}\,dx=\frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{2i+bn}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}\sqrt{\csc(a+b\log(cx^n))}}$$

```
[Out] 2*x*hypergeom([-1/2, 1/4*(-2*I-b*n)/b/n],[3/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)
^(2*I*b))/(2-I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)/csc(a+b*ln(c*x^n))
^(1/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4600, 4604, 371}

$$\int \frac{1}{\sqrt{\csc(a+b\log(cx^n))}}\,dx=\frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2},-\frac{bn+2i}{4bn},\frac{1}{4}\left(3-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}\sqrt{\csc(a+b\log(cx^n))}}$$

```
[In] Int[1/Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x*Hypergeometric2F1[-1/2, -1/4*(2*I + b*n)/(b*n), (3 - (2*I)/(b*n))/4, E
^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 - I*b*n)*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((
2*I)*b)]*Sqrt[Csc[a + b*Log[c*x^n]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\sqrt{\csc(a+b\log(x))}}\,dx, x, cx^n\right)}{n}\\ &= \frac{\left(x(cx^n)^{\frac{ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx, x, cx^n\right)}{n\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\\ &= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{1}{2}, -\frac{2i+bn}{4bn}, \frac{1}{4}\left(3-\frac{2i}{bn}\right), e^{2ia}(cx^n)^{2ib}\right)}{(2-ibn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 377 vs. 2(110) = 220.

Time = 3.21 (sec) , antiderivative size = 377, normalized size of antiderivative = 3.43

$$\int \frac{1}{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx =$$

$$-\frac{2be^{ia}nx(cx^n)^{ib}\sqrt{2-2e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}}\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2}, \frac{3}{4}-\frac{i}{2bn}, \frac{7}{4}-\right.\right.}{(2i+bn)(-2i+3bn)\left((2i+bn)x^{2ibn}+\right.}$$

$$+\frac{2x\sin\left(a-bn\log(x)+b\log\left(cx^n\right)\right)}{\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\left(bn\cos\left(a-bn\log(x)+b\log\left(cx^n\right)\right)+2\sin\left(a-bn\log(x)+b\log\left(cx^n\right)\right)\right)}$$

```
[In] Integrate[1/Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (-2*b*E^(I*a)*n*x*(c*x^n)^(I*b)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*S
qrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*((2*I +
 b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 - (I/2)/(
b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)] + (-2*I + 3*b*n)*Hypergeometric2F1[1/2
, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)]
))/((2*I + b*n)*(-2*I + 3*b*n)*((2*I + b*n)*x^((2*I)*b*n) + E^((2*I)*a)*(-2
*I + b*n)*(c*x^n)^((2*I)*b))) + (2*x*Sin[a - b*n*Log[x] + b*Log[c*x^n]])/(S
qrt[Csc[a + b*Log[c*x^n]]]*(b*n*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + 2*Sin[
a - b*n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \frac{1}{\sqrt{\csc \left(a+b\ln \left(c\,x^{n}\right)\right)}}dx$$

```
[In] int(1/csc(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(1/csc(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\sqrt{\csc \left(a+b\log \left(cx^{n}\right)\right)}}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{1}{\sqrt{\csc \left(a+b\log \left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{\sqrt{\csc \left(a+b\log \left(cx^{n}\right)\right)}}\,dx$$

```
[In] integrate(1/csc(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(1/sqrt(csc(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int \frac{1}{\sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\csc\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(1/sqrt(csc(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int \frac{1}{\sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\csc\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/sqrt(csc(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}}\,dx = \int \frac{1}{\sqrt{\frac{1}{\sin(a+b\,\ln(c\,x^{n}))}}}\,dx$$

```
[In] int(1/(1/sin(a + b*log(c*x^n)))^(1/2),x)
[Out] int(1/(1/sin(a + b*log(c*x^n)))^(1/2), x)
```

3.315 $\int \frac{1}{x\sqrt{\csc(a+b\log(cx^n))}}\,dx$

Optimal result 2724
Rubi [A] (verified) 2724
Mathematica [A] (verified) 2725
Maple [A] (verified) 2725
Fricas [C] (verification not implemented) 2726
Sympy [F] 2726
Maxima [F] 2726
Giac [F] 2727
Mupad [F(-1)] 2727

Optimal result

Integrand size = 19, antiderivative size = 59

$$\int \frac{1}{x\sqrt{\csc(a+b\log(cx^n))}}\,dx = \frac{2\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}}{bn}$$

```
[Out] -2*(sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*
x^n))*EllipticE(cos(1/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n
))^(1/2)*sin(a+b*ln(c*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.05 (sec) , antiderivative size = 59, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 2, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.105, Rules used = {3856, 2719}

$$\int \frac{1}{x\sqrt{\csc(a+b\log(cx^n))}}\,dx = \frac{2\sqrt{\sin(a+b\log(cx^n))}\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right)\middle|2\right)}{bn}$$

```
[In] Int[1/(x*Sqrt[Csc[a + b*Log[c*x^n]]]),x]
```

```
[Out] (2*Sqrt[Csc[a + b*Log[c*x^n]]]*EllipticE[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sq
rt[Sin[a + b*Log[c*x^n]]])/(b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\sqrt{\csc(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{\left(\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \sqrt{\sin(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n}\\ &= \frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right)\middle|2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{bn}\end{aligned}$$

Mathematica [A] (verified)

Time = 0.10 (sec) , antiderivative size = 58, normalized size of antiderivative = 0.98

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx = -\frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}E\left(\frac{1}{4}\left(-2a+\pi-2b\log\left(cx^n\right)\right)\middle|2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{bn}$$

```
[In] Integrate[1/(x*Sqrt[Csc[a + b*Log[c*x^n]]]),x]
[Out] (-2*Sqrt[Csc[a + b*Log[c*x^n]]]*EllipticE[(-2*a + Pi - 2*b*Log[c*x^n])/4, 2
]*Sqrt[Sin[a + b*Log[c*x^n]]])/(b*n)
```

Maple [A] (verified)

Time = 1.22 (sec) , antiderivative size = 129, normalized size of antiderivative = 2.19

method	result
derivativedivides	$-\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\left(2\,\text{EllipticE}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)-\text{E}\right.}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$
default	$-\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\left(2\,\text{EllipticE}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1},\frac{\sqrt{2}}{2}\right)-\text{E}\right.}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$

```
[In] int(1/x/csc(a+b*ln(c*x^n))^(1/2),x,method=_RETURNVERBOSE)
```

```
[Out] -1/n*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b
*ln(c*x^n)))^(1/2)*(2*EllipticE((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-E
llipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2)))/cos(a+b*ln(c*x^n))/sin(
a+b*ln(c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 82, normalized size of antiderivative = 1.39

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx = \frac{\sqrt{2i}\text{weierstrassZeta}(4,0,\text{weierstrassPInverse}(4,0,\cos\left(bn\log\left(x\right)+b\log\left(c\right)+a\right)+i\,\sin\left(bn\log\left(x\right)+b\log\left(\right.\right.}{}$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] (sqrt(2*I)*weierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) +
 b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) + sqrt(-2*I)*weierstras
sZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) - I*si
n(b*n*log(x) + b*log(c) + a))))/(b*n)
```

Sympy [F]

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx$$

```
[In] integrate(1/x/csc(a+b*ln(c*x**n))**(1/2),x)
```

```
[Out] Integral(1/(x*sqrt(csc(a + b*log(c*x**n)))), x)
```

Maxima [F]

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\,dx = \int \frac{1}{x\sqrt{\csc\left(b\log\left(cx^n\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
```

```
[Out] integrate(1/(x*sqrt(csc(b*log(c*x^n) + a))), x)
```

Giac [F]

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\sqrt{\csc\left(b\log\left(cx^{n}\right)+a\right)}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(1/(x*sqrt(csc(b*log(c*x^n) + a))), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\sqrt{\csc\left(a+b\log\left(cx^{n}\right)\right)}}\,dx=\int \frac{1}{x\,\sqrt{\frac{1}{\sin\left(a+b\,\ln\left(c\,x^{n}\right)\right)}}}\,dx$$

```
[In] int(1/(x*(1/sin(a + b*log(c*x^n)))^(1/2)),x)
[Out] int(1/(x*(1/sin(a + b*log(c*x^n)))^(1/2)), x)
```

3.316 $\int \frac{1}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2728
Rubi [A] (verified) 2728
Mathematica [A] (verified) 2729
Maple [F] 2730
Fricas [F(-2)] 2730
Sympy [F] 2730
Maxima [F] 2731
Giac [F] 2731
Mupad [F(-1)] 2731

Optimal result

Integrand size = 15, antiderivative size = 109

$$\int \frac{1}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*hypergeom([-3/2, -3/4-1/2*I/b/n],[1/4-1/2*I/b/n],exp(2*I*a)*(c*x^n)^(2*
I*b))/(2-3*I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)/csc(a+b*ln(c*x^n))^(
3/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 109, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.200$, Rules used = {4600, 4604, 371}

$$\int \frac{1}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] (2*x*Hypergeometric2F1[-3/2, (-3 - (2*I)/(b*n))/4, (1 - (2*I)/(b*n))/4, E^(
(2*I)*a)*(c*x^n)^((2*I)*b)])/((2 - (3*I)*b*n)*(1 - E^((2*I)*a)*(c*x^n)^((2*
I)*b))^(3/2)*Csc[a + b*Log[c*x^n]]^(3/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\csc^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{\frac{3ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx, x, cx^n\right)}{n\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}$$

$$= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i}{bn}\right),\frac{1}{4}\left(1-\frac{2i}{bn}\right),e^{2ia}(cx^n)^{2ib}\right)}{(2-3ibn)\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}$$

Mathematica [A] (verified)

Time = 1.61 (sec) , antiderivative size = 186, normalized size of antiderivative = 1.71

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}\,dx$$

$$= \frac{2ix\Big((2-ibn)\left(-2+3bn\cot\left(a+b\log\left(cx^n\right)\right)\right)-3b^2e^{-2ia}n^2(cx^n)^{-2ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\csc^2\left(a+b\log\left(c\right.\right.}{(2i-3bn)(2i+bn)(2i+3bn)\csc^{\frac{3}{2}}\left(a+b\log\left(c\right.\right.}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(-3/2),x]
```

```
[Out] ((2*I)*x*((2 - I*b*n)*(-2 + 3*b*n*Cot[a + b*Log[c*x^n]]) - (3*b^2*n^2*(-1 +
 E^((2*I)*a)*(c*x^n)^((2*I)*b))*Csc[a + b*Log[c*x^n]]^2*Hypergeometric2F1[1
, 3/4 + (I/2)/(b*n), 5/4 + (I/2)/(b*n), E^((-2*I)*(a + b*Log[c*x^n]))])/(E^
((2*I)*a)*(c*x^n)^((2*I)*b))))/((2*I - 3*b*n)*(2*I + b*n)*(2*I + 3*b*n)*Csc
[a + b*Log[c*x^n]]^(3/2))
```

Maple [F]

$$\int \frac{1}{\csc\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(1/csc(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(1/csc(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx = \int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx$$

```
[In] integrate(1/csc(a+b*ln(c*x**n))**(3/2),x)
```

```
[Out] Integral(csc(a + b*log(c*x**n))**(-3/2), x)
```

Maxima [F]

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{\csc\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^(-3/2), x)
```

Giac [F]

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{\csc\left(b\log\left(cx^{n}\right)+a\right)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^(-3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\csc^{\frac{3}{2}}\left(a+b\log\left(cx^{n}\right)\right)}\,dx=\int \frac{1}{{\left(\frac{1}{\sin\left(a+b\,\ln\left(c\,x^n\right)\right)}\right)}^{3/2}}\,dx$$

```
[In] int(1/(1/sin(a + b*log(c*x^n)))^(3/2),x)
[Out] int(1/(1/sin(a + b*log(c*x^n)))^(3/2), x)
```

3.317 $\int \frac{1}{x \csc^{\frac{3}{2}}(a+b \log(cx^n))} dx$

Optimal result 2732
Rubi [A] (verified) 2732
Mathematica [A] (verified) 2734
Maple [A] (verified) 2734
Fricas [C] (verification not implemented) 2734
Sympy [F] 2735
Maxima [F] 2735
Giac [F] 2735
Mupad [F(-1)] 2735

Optimal result

Integrand size = 19, antiderivative size = 98

$$\int \frac{1}{x \csc^{\frac{3}{2}}(a+b \log(cx^n))} dx = -\frac{2 \cos(a+b \log(cx^n))}{3bn\sqrt{\csc(a+b \log(cx^n))}} + \frac{2\sqrt{\csc(a+b \log(cx^n))} \operatorname{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b \log(cx^n)\right),2\right)\sqrt{\sin(a+b \log(cx^n))}}{3bn}$$

```
[Out] -2/3*cos(a+b*ln(c*x^n))/b/n/csc(a+b*ln(c*x^n))^(1/2)-2/3*(sin(1/2*a+1/4*Pi+
1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))*EllipticF(cos(1
/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n))^(1/2)*sin(a+b*ln(c
*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.07 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {3854, 3856, 2720}

$$\int \frac{1}{x \csc^{\frac{3}{2}}(a+b \log(cx^n))} dx = \frac{2\sqrt{\sin(a+b \log(cx^n))}\sqrt{\csc(a+b \log(cx^n))} \operatorname{EllipticF}\left(\frac{1}{2}\left(a+b \log(cx^n)-\frac{\pi}{2}\right),2\right)}{3bn} - \frac{2 \cos(a+b \log(cx^n))}{3bn\sqrt{\csc(a+b \log(cx^n))}}$$

```
[In] Int[1/(x*Csc[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] (-2*Cos[a + b*Log[c*x^n]])/(3*b*n*Sqrt[Csc[a + b*Log[c*x^n]]]) + (2*Sqrt[Cs
c[a + b*Log[c*x^n]]]*EllipticF[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sqrt[Sin[a +
 b*Log[c*x^n]]])/(3*b*n)
```

Rule 2720

```
Int[1/Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticF[(1/2
)*(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3854

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Csc[c + d*x])^(n + 1)/(b*d*n)), x] + Dist[(n + 1)/(b^2*n), Int[(b*Csc[c +
 d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] && IntegerQ[2*n
]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\csc^{\frac{3}{2}}(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{n} \\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}} + \frac{\text{Subst}\left(\int \sqrt{\csc(a+bx)}\,dx, x, \log\left(cx^n\right)\right)}{3n} \\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}} \\
&\quad + \frac{\left(\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int \frac{1}{\sqrt{\sin(a+bx)}}\,dx, x, \log\left(cx^n\right)\right)}{3n} \\
&= -\frac{2\cos\left(a+b\log\left(cx^n\right)\right)}{3bn\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}} \\
&\quad + \frac{2\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{EllipticF}\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log\left(cx^n\right)\right), 2\right)\sqrt{\sin\left(a+b\log\left(cx^n\right)\right)}}{3bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.15 (sec) , antiderivative size = 76, normalized size of antiderivative = 0.78

$$\int \frac{1}{x \csc^{\frac{3}{2}}(a + b \log(cx^n))} dx = -\frac{\sqrt{\csc(a + b \log(cx^n))} \left(2 \operatorname{EllipticF}\left(\frac{1}{4}(-2a + \pi - 2b \log(cx^n)), 2\right) \sqrt{\sin(a + b \log(cx^n))} + \sin(2(a + b \operatorname{lo}\right.}{3bn}$$

```
[In] Integrate[1/(x*Csc[a + b*Log[c*x^n]]^(3/2)),x]
```

```
[Out] -1/3*(Sqrt[Csc[a + b*Log[c*x^n]]]*(2*EllipticF[(-2*a + Pi - 2*b*Log[c*x^n])
/4, 2]*Sqrt[Sin[a + b*Log[c*x^n]]] + Sin[2*(a + b*Log[c*x^n])]))/(b*n)
```

Maple [A] (verified)

Time = 1.32 (sec) , antiderivative size = 131, normalized size of antiderivative = 1.34

method	result
derivativedivides	$\frac{\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\operatorname{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1}, \frac{\sqrt{2}}{2}\right)}{3} - \frac{2\cos(a+b\ln(c\,x^n))^2 \sin}{3}}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$
default	$\frac{\frac{\sqrt{\sin(a+b\ln(c\,x^n))+1}\,\sqrt{-2\sin(a+b\ln(c\,x^n))+2}\,\sqrt{-\sin(a+b\ln(c\,x^n))}\,\operatorname{EllipticF}\left(\sqrt{\sin(a+b\ln(c\,x^n))+1}, \frac{\sqrt{2}}{2}\right)}{3} - \frac{2\cos(a+b\ln(c\,x^n))^2 \sin}{3}}{n\cos(a+b\ln(c\,x^n))\sqrt{\sin(a+b\ln(c\,x^n))}\,b}$

```
[In] int(1/x/csc(a+b*ln(c*x^n))^(3/2),x,method=_RETURNVERBOSE)
```

```
[Out] 1/n*(1/3*(sin(a+b*ln(c*x^n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin
(a+b*ln(c*x^n)))^(1/2)*EllipticF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))-
2/3*cos(a+b*ln(c*x^n))^2*sin(a+b*ln(c*x^n)))/cos(a+b*ln(c*x^n))/sin(a+b*ln(
c*x^n))^(1/2)/b
```

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.09

$$\int \frac{1}{x \csc^{\frac{3}{2}}(a + b \log(cx^n))} dx = -\frac{2 \cos(bn \log(x) + b \log(c) + a) \sqrt{\sin(bn \log(x) + b \log(c) + a)} + i \sqrt{2i} \operatorname{weierstrassPInverse}(4, 0, \cos(bn}{}$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] -1/3*(2*cos(b*n*log(x) + b*log(c) + a)*sqrt(sin(b*n*log(x) + b*log(c) + a))
 + I*sqrt(2*I)*weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a) + I
*sin(b*n*log(x) + b*log(c) + a)) - I*sqrt(-2*I)*weierstrassPInverse(4, 0, c
os(b*n*log(x) + b*log(c) + a) - I*sin(b*n*log(x) + b*log(c) + a)))/(b*n)
```

Sympy [F]

$$\int \frac{1}{x\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/x/csc(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(1/(x*csc(a + b*log(c*x**n))**(3/2)), x)
```

Maxima [F]

$$\int \frac{1}{x\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\csc(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(1/(x*csc(b*log(c*x^n) + a)^(3/2)), x)
```

Giac [F]

$$\int \frac{1}{x\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\csc(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(1/(x*csc(b*log(c*x^n) + a)^(3/2)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\left(\frac{1}{\sin(a+b\ln(c\,x^n))}\right)^{3/2}}\,dx$$

```
[In] int(1/(x*(1/sin(a + b*log(c*x^n)))^(3/2)),x)
[Out] int(1/(x*(1/sin(a + b*log(c*x^n)))^(3/2)), x)
```

3.318 $\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$

Optimal result . . . 2736
Rubi [A] (verified) . . . 2736
Mathematica [B] (verified) . . . 2737
Maple [F] . . . 2738
Fricas [F(-2)] . . . 2738
Sympy [F] . . . 2738
Maxima [F] . . . 2739
Giac [F] . . . 2739
Mupad [F(-1)] . . . 2739

Optimal result

Integrand size = 15, antiderivative size = 110

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2x\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{2i+bn}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x*hypergeom([-5/2, -5/4-1/2*I/b/n],[1/4*(-2*I-b*n)/b/n],exp(2*I*a)*(c*x^n
)^(2*I*b))/(2-5*I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)/csc(a+b*ln(c*x^
n))^(5/2)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 110, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4600, 4604, 371}

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\frac{2x\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{bn+2i}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a+b\log(cx^n))}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (2*x*Hypergeometric2F1[-5/2, (-5 - (2*I)/(b*n))/4, -1/4*(2*I + b*n)/(b*n),
E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 - (5*I)*b*n)*(1 - E^((2*I)*a)*(c*x^n)^(
(2*I)*b))^(5/2)*Csc[a + b*Log[c*x^n]]^(5/2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
```

```
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1}{n}}}{\csc^{\frac{5}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n} \\
&= \frac{\left(x(cx^n)^{\frac{5ib}{2}-\frac{1}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{5ib}{2}+\frac{1}{n}}\left(1-e^{2ia}x^{2ib}\right)^{5/2}\,dx, x, cx^n\right)}{n\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)} \\
&= \frac{2x\,\text{Hypergeometric2F1}\left(-\frac{5}{2},\frac{1}{4}\left(-5-\frac{2i}{bn}\right),-\frac{2i+bn}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2-5ibn)\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 579 vs. 2(110) = 220.

Time = 7.48 (sec) , antiderivative size = 579, normalized size of antiderivative = 5.26

$$\int \frac{1}{\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)}\,dx = \frac{x\left(-\frac{60b^3e^{ia}n^3(cx^n)^{ib}\sqrt{2-2e^{2ia}(cx^n)^{2ib}}\sqrt{\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}}\left((2i+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},\frac{3}{4}-\frac{i}{2bn},\frac{7}{4}-\frac{i}{2bn},e^{2ia}(cx^n)^{2ib}\right)+(-2i+3bn)\right.}{(2i+bn)(-2i+3bn)\left((2i+bn)x^{2ibn}+e^{2ia}(-2i+bn)(cx^n)^{2ib}\right)}}{}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^(-5/2),x]
```

```
[Out] (x*((-60*b^3*E^(I*a)*n^3*(c*x^n)^(I*b)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I
)*b)]*Sqrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*
((2*I + b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, 3/4 - (I/2)/(b*n), 7/4 -
(I/2)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)] + (-2*I + 3*b*n)*Hypergeometric
2F1[1/2, -1/4*(2*I + b*n)/(b*n), 3/4 - (I/2)/(b*n), E^((2*I)*a)*(c*x^n)^((2
*I)*b)]))/((2*I + b*n)*(-2*I + 3*b*n)*((2*I + b*n)*x^((2*I)*b*n) + E^((2*I)
*a)*(-2*I + b*n)*(c*x^n)^((2*I)*b))) + (4*b*n*Cos[a - b*n*Log[x] + b*Log[c*
x^n]] - 12*b*n*Cos[a + b*n*Log[x] + b*Log[c*x^n]] + 8*b*n*Cos[b*n*Log[x] -
3*(a + b*Log[c*x^n])] + 8*Sin[a - b*n*Log[x] + b*Log[c*x^n]] + 60*b^2*n^2*S
in[a - b*n*Log[x] + b*Log[c*x^n]] + 4*Sin[a + b*n*Log[x] + b*Log[c*x^n]] -
5*b^2*n^2*Sin[a + b*n*Log[x] + b*Log[c*x^n]] - 4*Sin[3*a - b*n*Log[x] + 3*b
*Log[c*x^n]] - 5*b^2*n^2*Sin[3*a - b*n*Log[x] + 3*b*Log[c*x^n]])/(Sqrt[Csc[
a + b*Log[c*x^n]]]*(b*n*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + 2*Sin[a - b*n*
Log[x] + b*Log[c*x^n]]))))/(2*(4 + 25*b^2*n^2))
```

Maple [F]

$$\int \frac{1}{\csc \left(a +b \ln \left(c \,x^{n}\right)\right)^{\frac{5}{2}}}d x$$

```
[In] int(1/csc(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(1/csc(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(1/csc(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Integral(csc(a + b*log(c*x**n))**(-5/2), x)
```

Maxima [F]

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\csc(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^(-5/2), x)
```

Giac [F]

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\csc(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/csc(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^(-5/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{\left(\frac{1}{\sin(a+b\,\ln(c\,x^n))}\right)^{5/2}}\,dx$$

```
[In] int(1/(1/sin(a + b*log(c*x^n)))^(5/2),x)
[Out] int(1/(1/sin(a + b*log(c*x^n)))^(5/2), x)
```

3.319 $\int \frac{1}{x \csc^{\frac{5}{2}}(a+b\log(cx^n))} dx$

Optimal result 2740
Rubi [A] (verified) 2740
Mathematica [A] (verified) 2742
Maple [A] (verified) 2742
Fricas [C] (verification not implemented) 2743
Sympy [F(-1)] 2743
Maxima [F] 2743
Giac [F] 2744
Mupad [F(-1)] 2744

Optimal result

Integrand size = 19, antiderivative size = 98

$$\int \frac{1}{x \csc^{\frac{5}{2}}(a+b\log(cx^n))} dx = -\frac{2\cos(a+b\log(cx^n))}{5bn\csc^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{6\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}}{5bn}$$

```
[Out] -2/5*cos(a+b*ln(c*x^n))/b/n/csc(a+b*ln(c*x^n))^(3/2)-6/5*(sin(1/2*a+1/4*Pi+
1/2*b*ln(c*x^n))^2)^(1/2)/sin(1/2*a+1/4*Pi+1/2*b*ln(c*x^n))*EllipticE(cos(1
/2*a+1/4*Pi+1/2*b*ln(c*x^n)),2^(1/2))*csc(a+b*ln(c*x^n))^(1/2)*sin(a+b*ln(c
*x^n))^(1/2)/b/n
```

Rubi [A] (verified)

Time = 0.06 (sec) , antiderivative size = 98, normalized size of antiderivative = 1.00, number of steps used = 4, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.158$, Rules used = {3854, 3856, 2719}

$$\int \frac{1}{x \csc^{\frac{5}{2}}(a+b\log(cx^n))} dx = \frac{6\sqrt{\sin(a+b\log(cx^n))}\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a+b\log(cx^n)-\frac{\pi}{2}\right)\middle|2\right)}{5bn} - \frac{2\cos(a+b\log(cx^n))}{5bn\csc^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[1/(x*Csc[a + b*Log[c*x^n]]^(5/2)),x]
```

```
[Out] (-2*Cos[a + b*Log[c*x^n]])/(5*b*n*Csc[a + b*Log[c*x^n]]^(3/2)) + (6*Sqrt[Cs
c[a + b*Log[c*x^n]]]*EllipticE[(a - Pi/2 + b*Log[c*x^n])/2, 2]*Sqrt[Sin[a +
 b*Log[c*x^n]]])/(5*b*n)
```

Rule 2719

```
Int[Sqrt[sin[(c_.) + (d_.)*(x_)]], x_Symbol] :> Simp[(2/d)*EllipticE[(1/2)*
(c - Pi/2 + d*x), 2], x] /; FreeQ[{c, d}, x]
```

Rule 3854

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Simp[Cos[c + d*x]*((
b*Csc[c + d*x])^(n + 1)/(b*d*n)), x] + Dist[(n + 1)/(b^2*n), Int[(b*Csc[c +
 d*x])^(n + 2), x], x] /; FreeQ[{b, c, d}, x] && LtQ[n, -1] && IntegerQ[2*n
]
```

Rule 3856

```
Int[(csc[(c_.) + (d_.)*(x_)]*(b_.))^(n_), x_Symbol] :> Dist[(b*Csc[c + d*x]
)^n*Sin[c + d*x]^n, Int[1/Sin[c + d*x]^n, x], x] /; FreeQ[{b, c, d}, x] &&
EqQ[n^2, 1/4]
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\text{Subst}\left(\int \frac{1}{\csc^{\frac{5}{2}}(a+bx)}\,dx, x, \log(cx^n)\right)}{n}\\
&= -\frac{2\cos(a+b\log(cx^n))}{5bn\csc^{\frac{3}{2}}(a+b\log(cx^n))} + \frac{3\text{Subst}\left(\int \frac{1}{\sqrt{\csc(a+bx)}}\,dx, x, \log(cx^n)\right)}{5n}\\
&= -\frac{2\cos(a+b\log(cx^n))}{5bn\csc^{\frac{3}{2}}(a+b\log(cx^n))}\\
&\quad + \frac{\left(3\sqrt{\csc(a+b\log(cx^n))}\sqrt{\sin(a+b\log(cx^n))}\right)\text{Subst}\left(\int \sqrt{\sin(a+bx)}\,dx, x, \log(cx^n)\right)}{5n}\\
&= -\frac{2\cos(a+b\log(cx^n))}{5bn\csc^{\frac{3}{2}}(a+b\log(cx^n))}\\
&\quad + \frac{6\sqrt{\csc(a+b\log(cx^n))}E\left(\frac{1}{2}\left(a-\frac{\pi}{2}+b\log(cx^n)\right)\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}}{5bn}
\end{aligned}$$

Mathematica [A] (verified)

Time = 0.16 (sec) , antiderivative size = 88, normalized size of antiderivative = 0.90

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = -\frac{2\sqrt{\csc(a+b\log(cx^n))}\left(3E\left(\frac{1}{4}(-2a+\pi-2b\log(cx^n))\middle|2\right)\sqrt{\sin(a+b\log(cx^n))}+\cos(a+b\log(cx^n))\right.}{5bn}$$

[In] Integrate[1/(x*Csc[a + b*Log[c*x^n]]^(5/2)),x]

[Out] (-2*Sqrt[Csc[a + b*Log[c*x^n]]]*(3*EllipticE[(-2*a + Pi - 2*b*Log[c*x^n])/4
, 2]*Sqrt[Sin[a + b*Log[c*x^n]]] + Cos[a + b*Log[c*x^n]]*Sin[a + b*Log[c*x^
n]]^2))/(5*b*n)

Maple [A] (verified)

Time = 1.32 (sec) , antiderivative size = 205, normalized size of antiderivative = 2.09

method	result
derivativedivides	$\frac{\frac{2\sin(a+b\ln(cx^n))^4}{5}-\frac{2\sin(a+b\ln(cx^n))^2}{5}-\frac{6\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\ \mathrm{EllipticE}\left(\sqrt{\sin(a-\right.}{5}}{n\cos(a+b\ln(cx^n))\sqrt{}}$
default	$\frac{\frac{2\sin(a+b\ln(cx^n))^4}{5}-\frac{2\sin(a+b\ln(cx^n))^2}{5}-\frac{6\sqrt{\sin(a+b\ln(cx^n))+1}\,\sqrt{-2\sin(a+b\ln(cx^n))+2}\,\sqrt{-\sin(a+b\ln(cx^n))}\ \mathrm{EllipticE}\left(\sqrt{\sin(a-\right.}{5}}{n\cos(a+b\ln(cx^n))\sqrt{}}$

[In] int(1/x/csc(a+b*ln(c*x^n))^(5/2),x,method=_RETURNVERBOSE)

[Out] 1/n*(2/5*sin(a+b*ln(c*x^n))^4-2/5*sin(a+b*ln(c*x^n))^2-6/5*(sin(a+b*ln(c*x^
n))+1)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*El
lipticE((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2))+3/5*(sin(a+b*ln(c*x^n))+1
)^(1/2)*(-2*sin(a+b*ln(c*x^n))+2)^(1/2)*(-sin(a+b*ln(c*x^n)))^(1/2)*Ellipti
cF((sin(a+b*ln(c*x^n))+1)^(1/2),1/2*2^(1/2)))/cos(a+b*ln(c*x^n))/sin(a+b*ln
(c*x^n))^(1/2)/b

Fricas [C] (verification not implemented)

Result contains higher order function than in optimal. Order 9 vs. order 4.

Time = 0.09 (sec) , antiderivative size = 130, normalized size of antiderivative = 1.33

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{3\sqrt{2i}\text{weierstrassZeta}(4,0,\text{weierstrassPInverse}(4,0,\cos(bn\log(x)+b\log(c)+a)+i\sin(bn\log(x)+b\log(c)+a)))\ldots}{\ldots}$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] 1/5*(3*sqrt(2*I)*weierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*lo
g(x) + b*log(c) + a) + I*sin(b*n*log(x) + b*log(c) + a))) + 3*sqrt(-2*I)*we
ierstrassZeta(4, 0, weierstrassPInverse(4, 0, cos(b*n*log(x) + b*log(c) + a
) - I*sin(b*n*log(x) + b*log(c) + a))) + 2*(cos(b*n*log(x) + b*log(c) + a)^
3 - cos(b*n*log(x) + b*log(c) + a))/sqrt(sin(b*n*log(x) + b*log(c) + a)))/(
b*n)
```

Sympy [F(-1)]

Timed out.

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \text{Timed out}$$

```
[In] integrate(1/x/csc(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx = \int \frac{1}{x\csc(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
```

```
[Out] integrate(1/(x*csc(b*log(c*x^n) + a)^(5/2)), x)
```

Giac [F]

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{x\csc(b\log(cx^n)+a)^{\frac{5}{2}}}\,dx$$

```
[In] integrate(1/x/csc(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] integrate(1/(x*csc(b*log(c*x^n) + a)^(5/2)), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{1}{x\csc^{\frac{5}{2}}(a+b\log(cx^n))}\,dx=\int \frac{1}{x\left(\frac{1}{\sin(a+b\ln(c\,x^n))}\right)^{5/2}}\,dx$$

```
[In] int(1/(x*(1/sin(a + b*log(c*x^n)))^(5/2)),x)
[Out] int(1/(x*(1/sin(a + b*log(c*x^n)))^(5/2)), x)
```

3.320 $\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx$

Optimal result 2745
Rubi [A] (verified) 2745
Mathematica [B] (verified) 2746
Maple [F] 2747
Fricas [F] 2747
Sympy [F] 2747
Maxima [F] 2748
Giac [F] 2752
Mupad [F(-1)] 2753

Optimal result

Integrand size = 21, antiderivative size = 122

$$\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx = -\frac{8e^{3iad}(ex)^{1+m}(cx^n)^{3ibd}\,\text{Hypergeometric2F1}\left(3,-\frac{i(1+m)-3bdn}{2bdn},-\frac{i(1+m)-5bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(i(1+m)-3bdn)}$$

```
[Out] -8*exp(3*I*a*d)*(e*x)^(1+m)*(c*x^n)^(3*I*b*d)*hypergeom([3, 1/2*(-I*(1+m)+3
*b*d*n)/b/d/n],[1/2*(-I*(1+m)+5*b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d
))/e/(I*(1+m)-3*b*d*n)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 122, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4606, 4602, 371}

$$\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx = -\frac{8e^{3iad}(ex)^{m+1}(cx^n)^{3ibd}\,\text{Hypergeometric2F1}\left(3,-\frac{i(m+1)-3bdn}{2bdn},-\frac{i(m+1)-5bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(-3bdn+i(m+1))}$$

```
[In] Int[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] (-8*E^((3*I)*a*d)*(e*x)^(1 + m)*(c*x^n)^((3*I)*b*d)*Hypergeometric2F1[3, -1
/2*(I*(1 + m) - 3*b*d*n)/(b*d*n), -1/2*(I*(1 + m) - 5*b*d*n)/(b*d*n), E^((2
*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(I*(1 + m) - 3*b*d*n))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc^3(d(a+b\log(x)))\,dx, x, cx^n\right)}{en}$$
$$= \frac{\left(8ie^{3iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+3ibd+\frac{1+m}{n}}}{\left(1-e^{2iad}x^{2ibd}\right)^3}\,dx, x, cx^n\right)}{en}$$
$$= -\frac{8e^{3iad}(ex)^{1+m}(cx^n)^{3ibd}\,\text{Hypergeometric2F1}\left(3, -\frac{i(1+m)-3bdn}{2bdn}, -\frac{i(1+m)-5bdn}{2bdn}, e^{2iad}(cx^n)^{2ibd}\right)}{i(e+em)-3bden}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 367 vs. 2(122) = 244.

Time = 1.76 (sec) , antiderivative size = 367, normalized size of antiderivative = 3.01

$$\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx$$
$$= \frac{x(ex)^m\left(-bdn\csc^2\left(\frac{1}{2}d(a+b\log(cx^n))\right) - 4(1+m)\csc(d(a-bn\log(x)+b\log(cx^n))) + bdn\sec^2\left(\frac{1}{2}d(a+\right.\right.}{}$$

```
[In] Integrate[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^3,x]
```

```
[Out] (x*(e*x)^m*(-(b*d*n*Csc[(d*(a + b*Log[c*x^n]))/2]^2) - 4*(1 + m)*Csc[d*(a -
 b*n*Log[x] + b*Log[c*x^n])] + b*d*n*Sec[(d*(a + b*Log[c*x^n]))/2]^2 + 2*(1
```

```
 + m)*Csc[(d*(a + b*Log[c*x^n]))/2]*Csc[(d*(a - b*n*Log[x] + b*Log[c*x^n]))
/2]*Sin[(b*d*n*Log[x])/2] - 2*(1 + m)*Sec[(d*(a + b*Log[c*x^n]))/2]*Sec[(d*
(a - b*n*Log[x] + b*Log[c*x^n]))/2]*Sin[(b*d*n*Log[x])/2] + 8*(1 + m - I*b*
d*n)*x^(I*b*d*n)*Hypergeometric2F1[1, (-I - I*m + b*d*n)/(2*b*d*n), ((-1/2*
I)*(1 + m + (3*I)*b*d*n))/(b*d*n), x^((2*I)*b*d*n)*(Cos[2*d*(a - b*n*Log[x]
 + b*Log[c*x^n])] + I*Sin[2*d*(a - b*n*Log[x] + b*Log[c*x^n])])]*((-I)*Cos[
d*(a - b*n*Log[x] + b*Log[c*x^n])] + Sin[d*(a - b*n*Log[x] + b*Log[c*x^n])]
)))/(8*b^2*d^2*n^2)
```

Maple [F]

$$\int (ex)^m \csc \left(d(a+b\ln \left(c\,x^n\right))\right)^3 dx$$

[In] `int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^3,x)`

[Out] `int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^3,x)`

Fricas [F]

$$\int (ex)^m \csc^3\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^3\,dx$$

[In] `integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^3,x, algorithm="fricas")`

[Out] `integral((e*x)^m*csc(b*d*log(c*x^n) + a*d)^3, x)`

Sympy [F]

$$\int (ex)^m \csc^3\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \csc^3\left(ad+bd\log\left(cx^n\right)\right)dx$$

[In] `integrate((e*x)**m*csc(d*(a+b*ln(c*x**n)))**3,x)`

[Out] `Integral((e*x)**m*csc(a*d + b*d*log(c*x**n))**3, x)`

Maxima [F]

$$\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx = \int (ex)^m \csc((b\log(cx^n)+a)d)^3\,dx$$

[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^3,x, algorithm="maxima")

[Out] -((b*d*e^m*n*cos(b*d*log(c)) - e^m*m*sin(b*d*log(c)) - e^m*sin(b*d*log(c)))*x*x^m*cos(b*d*log(x^n) + a*d) - (b*d*e^m*n*sin(b*d*log(c)) + e^m*m*cos(b*d*log(c)) + e^m*cos(b*d*log(c)))*x*x^m*sin(b*d*log(x^n) + a*d) - (((cos(3*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*m - (b*d*cos(4*b*d*log(c))*cos(3*b*d*log(c)) + b*d*sin(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*n + (cos(3*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m)*x*x^m*cos(3*b*d*log(x^n) + 3*a*d) - ((cos(b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(b*d*log(c)))*e^m*m + (b*d*cos(4*b*d*log(c))*cos(b*d*log(c)) + b*d*sin(4*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*cos(b*d*log(x^n) + a*d) - ((cos(4*b*d*log(c))*cos(3*b*d*log(c)) + sin(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*m + (b*d*cos(3*b*d*log(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*n + (cos(4*b*d*log(c))*cos(3*b*d*log(c)) + sin(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m)*x*x^m*sin(3*b*d*log(x^n) + 3*a*d) + ((cos(4*b*d*log(c))*cos(b*d*log(c)) + sin(4*b*d*log(c))*sin(b*d*log(c)))*e^m*m - (b*d*cos(b*d*log(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(4*b*d*log(c))*cos(b*d*log(c)) + sin(4*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*sin(b*d*log(x^n) + a*d))*cos(4*b*d*log(x^n) + 4*a*d) - (2*((cos(2*b*d*log(c))*sin(3*b*d*log(c)) - cos(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b*d*cos(3*b*d*log(c))*cos(2*b*d*log(c)) + b*d*sin(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(2*b*d*log(c))*sin(3*b*d*log(c)) - cos(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*cos(2*b*d*log(x^n) + 2*a*d) - 2*((cos(3*b*d*log(c))*cos(2*b*d*log(c)) + sin(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m - (b*d*cos(2*b*d*log(c))*sin(3*b*d*log(c)) - b*d*cos(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(3*b*d*log(c))*cos(2*b*d*log(c)) + sin(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*sin(2*b*d*log(x^n) + 2*a*d) - (b*d*e^m*n*cos(3*b*d*log(c)) + e^m*m*sin(3*b*d*log(c)) + e^m*sin(3*b*d*log(c)))*x*x^m)*cos(3*b*d*log(x^n) + 3*a*d) - 2*(((cos(b*d*log(c))*sin(2*b*d*log(c)) - cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m*m + (b*d*cos(2*b*d*log(c))*cos(b*d*log(c)) + b*d*sin(2*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(b*d*log(c))*sin(2*b*d*log(c)) - cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*cos(b*d*log(x^n) + a*d) - ((cos(2*b*d*log(c))*cos(b*d*log(c)) + sin(2*b*d*log(c))*sin(b*d*log(c)))*e^m*m - (b*d*cos(b*d*log(c))*sin(2*b*d*log(c)) - b*d*cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(2*b*d*log(c))*cos(b*d*log(c)) + sin(2*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*sin(b*d*log(x^n) + a*d))*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^6*d^6*e^m*n^6 + (b^4*d^4*e^m*m^2 + 2*b^4*d^4*e^m*m + b^4*d^4*e^m)*n^4 + ((b^6*d^6*co

s(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(4*
b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d
*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c)
)^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*cos(4*b*d*log(x^n) + 4*a*d)^2
+ 4*((b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 +
((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b
^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*
cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*cos(2*b*d*log(
x^n) + 2*a*d)^2 + ((b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))
^2)*e^m*n^6 + ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*
e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m
*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*
sin(4*b*d*log(x^n) + 4*a*d)^2 + 4*((b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*s
in(2*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2
*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*
d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c
))^2)*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(b^6*d^6*e^m*n^6*cos(4*b*
d*log(c)) + (b^4*d^4*e^m*m^2*cos(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(4*b*d*
log(c)) + b^4*d^4*e^m*cos(4*b*d*log(c)))*n^4 - 2*((b^6*d^6*cos(4*b*d*log(c)
)*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6
+ ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))
*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)
) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d
*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e
^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*((b^6*d^6*cos(2*b*d*log(c))*sin(4*
b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*
d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b
*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*
d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))
*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)
*sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) - 4*(b^6*d^6*e^m*
n^6*cos(2*b*d*log(c)) + (b^4*d^4*e^m*m^2*cos(2*b*d*log(c)) + 2*b^4*d^4*e^m*
m*cos(2*b*d*log(c)) + b^4*d^4*e^m*cos(2*b*d*log(c)))*n^4)*cos(2*b*d*log(x^n
) + 2*a*d) - 2*(b^6*d^6*e^m*n^6*sin(4*b*d*log(c)) + (b^4*d^4*e^m*m^2*sin(4*
b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(4*b*d*log(c)) + b^4*d^4*e^m*sin(4*b*d*log
(c)))*n^4 - 2*((b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*cos(4
*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*d^4*cos(2*b*d*log(c))*sin(4
*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^
4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2
*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^
4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d
) + 2*((b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log
(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log
(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*co
s(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log

(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d) + 4*(b^6*d^6*e^m*n^6*sin(2*b*d*log(c)) + (b^4*d^4*e^m*m^2*sin(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(2*b*d*log(c)) + b^4*d^4*e^m*sin(2*b*d*log(c)))*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*integrate(1/4*(x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^4*d^4*n^4*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^4*d^4*n^4*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d) + b^4*d^4*n^4 + (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*cos(b*d*log(x^n) + a*d)^2 + (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4*sin(b*d*log(x^n) + a*d)^2), x) + 2*(b^6*d^6*e^m*n^6 + (b^4*d^4*e^m*m^2 + 2*b^4*d^4*e^m*m + b^4*d^4*e^m)*n^4 + ((b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*cos(4*b*d*log(x^n) + 4*a*d)^2 + 4*((b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d)^2 + ((b^6*d^6*cos(4*b*d*log(c))^2 + b^6*d^6*sin(4*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(4*b*d*log(c))^2 + b^4*d^4*sin(4*b*d*log(c))^2)*e^m)*n^4)*sin(4*b*d*log(x^n) + 4*a*d)^2 + 4*((b^6*d^6*cos(2*b*d*log(c))^2 + b^6*d^6*sin(2*b*d*log(c))^2)*e^m*n^6 + ((b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m*m + (b^4*d^4*cos(2*b*d*log(c))^2 + b^4*d^4*sin(2*b*d*log(c))^2)*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d)^2 + 2*(b^6*d^6*e^m*n^6*cos(4*b*d*log(c)) + (b^4*d^4*e^m*m^2*cos(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(4*b*d*log(c)) + b^4*d^4*e^m*cos(4*b*d*log(c)))*n^4 - 2*((b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*((b^6*d^6*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) - 4*(b^6*d^6*e^m*n^6*cos(2*b*d*log(c)) + (b^4*d^4*e^m*m^2*cos(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*cos(2*b*d*log(c)) + b^4*d^4*e^m*cos(2*b*d*log(c)))*n^4)*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b^6*d^6*e^m*n^6*sin(4*b*d*log

(c)) + (b^4*d^4*e^m*m^2*sin(4*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin(4*b*d*log(c
)) + b^4*d^4*e^m*sin(4*b*d*log(c)))*n^4 - 2*((b^6*d^6*cos(2*b*d*log(c))*sin
(4*b*d*log(c)) - b^6*d^6*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b
^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(
2*b*d*log(c)))*e^m*m^2 + 2*(b^4*d^4*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b
^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(2*b*d*log(
c))*sin(4*b*d*log(c)) - b^4*d^4*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n
^4)*cos(2*b*d*log(x^n) + 2*a*d) + 2*((b^6*d^6*cos(4*b*d*log(c))*cos(2*b*d*l
og(c)) + b^6*d^6*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n^6 + ((b^4*d^4*c
os(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*lo
g(c)))*e^m*m^2 + 2*(b^4*d^4*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^4*d^4*s
in(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m*m + (b^4*d^4*cos(4*b*d*log(c))*cos(
2*b*d*log(c)) + b^4*d^4*sin(4*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*n^4)*sin(
2*b*d*log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) + 4*a*d) + 4*(b^6*d^6*e^m*n^6*s
in(2*b*d*log(c)) + (b^4*d^4*e^m*m^2*sin(2*b*d*log(c)) + 2*b^4*d^4*e^m*m*sin
(2*b*d*log(c)) + b^4*d^4*e^m*sin(2*b*d*log(c)))*n^4)*sin(2*b*d*log(x^n) + 2
*a*d))*integrate(-1/4*(x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*log(c)) + x^m*co
s(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^4*d^4*n^4*cos(b*d*log(c))*cos(b
*d*log(x^n) + a*d) - 2*b^4*d^4*n^4*sin(b*d*log(c))*sin(b*d*log(x^n) + a*d)
- b^4*d^4*n^4 - (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*log(c))^2)*n^4
*cos(b*d*log(x^n) + a*d)^2 - (b^4*d^4*cos(b*d*log(c))^2 + b^4*d^4*sin(b*d*l
og(c))^2)*n^4*sin(b*d*log(x^n) + a*d)^2), x) - (((cos(4*b*d*log(c))*cos(3*b
*d*log(c)) + sin(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*m + (b*d*cos(3*b*d*lo
g(c))*sin(4*b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*n +
(cos(4*b*d*log(c))*cos(3*b*d*log(c)) + sin(4*b*d*log(c))*sin(3*b*d*log(c)))
*e^m)*x*x^m*cos(3*b*d*log(x^n) + 3*a*d) - ((cos(4*b*d*log(c))*cos(b*d*log(c
)) + sin(4*b*d*log(c))*sin(b*d*log(c)))*e^m*m - (b*d*cos(b*d*log(c))*sin(4*
b*d*log(c)) - b*d*cos(4*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(4*b*d*log
(c))*cos(b*d*log(c)) + sin(4*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*cos(b*
d*log(x^n) + a*d) + ((cos(3*b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c
))*sin(3*b*d*log(c)))*e^m*m - (b*d*cos(4*b*d*log(c))*cos(3*b*d*log(c)) + b*
d*sin(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m*n + (cos(3*b*d*log(c))*sin(4*b*d
*log(c)) - cos(4*b*d*log(c))*sin(3*b*d*log(c)))*e^m)*x*x^m*sin(3*b*d*log(x^
n) + 3*a*d) - ((cos(b*d*log(c))*sin(4*b*d*log(c)) - cos(4*b*d*log(c))*sin(b
*d*log(c)))*e^m*m + (b*d*cos(4*b*d*log(c))*cos(b*d*log(c)) + b*d*sin(4*b*d*
log(c))*sin(b*d*log(c)))*e^m*n + (cos(b*d*log(c))*sin(4*b*d*log(c)) - cos(4
*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*sin(b*d*log(x^n) + a*d))*sin(4*b*d
*log(x^n) + 4*a*d) - (2*((cos(3*b*d*log(c))*cos(2*b*d*log(c)) + sin(3*b*d*l
og(c))*sin(2*b*d*log(c)))*e^m*m - (b*d*cos(2*b*d*log(c))*sin(3*b*d*log(c))
- b*d*cos(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(3*b*d*log(c))*cos(2
*b*d*log(c)) + sin(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*cos(2*b*d*lo
g(x^n) + 2*a*d) + 2*((cos(2*b*d*log(c))*sin(3*b*d*log(c)) - cos(3*b*d*log(c
))*sin(2*b*d*log(c)))*e^m*m + (b*d*cos(3*b*d*log(c))*cos(2*b*d*log(c)) + b*
d*sin(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m*n + (cos(2*b*d*log(c))*sin(3*b*d
*log(c)) - cos(3*b*d*log(c))*sin(2*b*d*log(c)))*e^m)*x*x^m*sin(2*b*d*log(x^

```
n) + 2*a*d) + (b*d*e^m*n*sin(3*b*d*log(c)) - e^m*m*cos(3*b*d*log(c)) - e^m*
cos(3*b*d*log(c)))*x*x^m)*sin(3*b*d*log(x^n) + 3*a*d) - 2*(((cos(2*b*d*log(
c))*cos(b*d*log(c)) + sin(2*b*d*log(c))*sin(b*d*log(c)))*e^m*m - (b*d*cos(b
*d*log(c))*sin(2*b*d*log(c)) - b*d*cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m*n
 + (cos(2*b*d*log(c))*cos(b*d*log(c)) + sin(2*b*d*log(c))*sin(b*d*log(c)))*
e^m)*x*x^m*cos(b*d*log(x^n) + a*d) + ((cos(b*d*log(c))*sin(2*b*d*log(c)) -
cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m*m + (b*d*cos(2*b*d*log(c))*cos(b*d*l
og(c)) + b*d*sin(2*b*d*log(c))*sin(b*d*log(c)))*e^m*n + (cos(b*d*log(c))*si
n(2*b*d*log(c)) - cos(2*b*d*log(c))*sin(b*d*log(c)))*e^m)*x*x^m*sin(b*d*log
(x^n) + a*d))*sin(2*b*d*log(x^n) + 2*a*d))/(4*b^2*d^2*n^2*cos(2*b*d*log(c))
*cos(2*b*d*log(x^n) + 2*a*d) - 4*b^2*d^2*n^2*sin(2*b*d*log(c))*sin(2*b*d*lo
g(x^n) + 2*a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(4*b*d*log(c))^2 + b^2*d^2*sin(
4*b*d*log(c))^2)*n^2*cos(4*b*d*log(x^n) + 4*a*d)^2 - 4*(b^2*d^2*cos(2*b*d*l
og(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 -
 (b^2*d^2*cos(4*b*d*log(c))^2 + b^2*d^2*sin(4*b*d*log(c))^2)*n^2*sin(4*b*d*
log(x^n) + 4*a*d)^2 - 4*(b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*lo
g(c))^2)*n^2*sin(2*b*d*log(x^n) + 2*a*d)^2 - 2*(b^2*d^2*n^2*cos(4*b*d*log(c
)) - 2*(b^2*d^2*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log
(c))*sin(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) - 2*(b^2*d^2*cos(2*
b*d*log(c))*sin(4*b*d*log(c)) - b^2*d^2*cos(4*b*d*log(c))*sin(2*b*d*log(c))
)*n^2*sin(2*b*d*log(x^n) + 2*a*d))*cos(4*b*d*log(x^n) + 4*a*d) + 2*(b^2*d^2
*n^2*sin(4*b*d*log(c)) - 2*(b^2*d^2*cos(2*b*d*log(c))*sin(4*b*d*log(c)) - b
^2*d^2*cos(4*b*d*log(c))*sin(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d)
 + 2*(b^2*d^2*cos(4*b*d*log(c))*cos(2*b*d*log(c)) + b^2*d^2*sin(4*b*d*log(c
))*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d))*sin(4*b*d*log(x^n) +
 4*a*d))
```

Giac [F]

$$\int (ex)^m \csc^3 (d(a+b\log(cx^n)))\,dx = \int (ex)^m \csc((b\log(cx^n)+a)d)^3\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^3,x, algorithm="giac")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d)^3, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \csc^3(d(a+b\log(cx^n)))\,dx = \int \frac{(e\,x)^m}{\sin\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)^3}\,dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^3,x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^3, x)
```

3.321 $\int (ex)^m \csc^2(d(a+b\log(cx^n)))\,dx$

Optimal result 2754
Rubi [A] (verified) 2754
Mathematica [A] (verified) 2755
Maple [F] 2756
Fricas [F] 2756
Sympy [F] 2756
Maxima [F] 2756
Giac [F] 2757
Mupad [F(-1)] 2757

Optimal result

Integrand size = 21, antiderivative size = 119

$$\int (ex)^m \csc^2(d(a+b\log(cx^n)))\,dx = -\frac{4e^{2iad}(ex)^{1+m}(cx^n)^{2ibd}\,\text{Hypergeometric2F1}\left(2,-\frac{i(1+m)-2bdn}{2bdn},-\frac{i(1+m)-4bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(1+m+2ibdn)}$$

```
[Out] -4*exp(2*I*a*d)*(e*x)^(1+m)*(c*x^n)^(2*I*b*d)*hypergeom([2, 1/2*(-I*(1+m)+2
*b*d*n)/b/d/n],[1/2*(-I*(1+m)+4*b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d
))/e/(1+m+2*I*b*d*n)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 119, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}} = 0.143$, Rules used = {4606, 4602, 371}

$$\int (ex)^m \csc^2(d(a+b\log(cx^n)))\,dx = -\frac{4e^{2iad}(ex)^{m+1}(cx^n)^{2ibd}\,\text{Hypergeometric2F1}\left(2,-\frac{i(m+1)-2bdn}{2bdn},-\frac{i(m+1)-4bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(2ibdn+m+1)}$$

```
[In] Int[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] (-4*E^((2*I)*a*d)*(e*x)^(1 + m)*(c*x^n)^((2*I)*b*d)*Hypergeometric2F1[2, -1
/2*(I*(1 + m) - 2*b*d*n)/(b*d*n), -1/2*(I*(1 + m) - 4*b*d*n)/(b*d*n), E^((2
*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(1 + m + (2*I)*b*d*n))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc^2(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= -\frac{\left(4e^{2iad}(ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+2ibd+\frac{1+m}{n}}}{\left(1-e^{2iad}x^{2ibd}\right)^2}\,dx,x,cx^n\right)}{en}$$

$$= -\frac{4e^{2iad}(ex)^{1+m}(cx^n)^{2ibd}\,\text{Hypergeometric2F1}\left(2,-\frac{i(1+m)-2bdn}{2bdn},-\frac{i(1+m)-4bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(1+m+2ibdn)}$$

Mathematica [A] (verified)

Time = 13.66 (sec) , antiderivative size = 225, normalized size of antiderivative = 1.89

$$\int (ex)^m\csc^2(d(a+b\log(cx^n)))\,dx =$$

$$-\frac{x(ex)^m\left((1+m+2ibdn)\cot(d(a+b\log(cx^n)))+i(1+m+2ibdn)\,\text{Hypergeometric2F1}\left(1,-\frac{i(1+m)}{2bdn},\right.\right.}{b}$$

```
[In] Integrate[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^2,x]
```

```
[Out] -((x*(e*x)^m*((1 + m + (2*I)*b*d*n)*Cot[d*(a + b*Log[c*x^n])] + I*(1 + m +
(2*I)*b*d*n)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m))/(b*d*n), 1 - ((I/2)*(1
 + m))/(b*d*n), E^((2*I)*d*(a + b*Log[c*x^n]))] + I*E^((2*I)*a*d)*(1 + m)*(
c*x^n)^((2*I)*b*d)*Hypergeometric2F1[1, ((-1/2*I)*(1 + m + (2*I)*b*d*n))/(b
*d*n), ((-1/2*I)*(1 + m + (4*I)*b*d*n))/(b*d*n), E^((2*I)*a*d)*(c*x^n)^((2*
I)*b*d)]))/(b*d*n*(1 + m + (2*I)*b*d*n)))
```

Maple [F]

$$\int (ex)^m \csc\left(d(a+b\ln\left(c\,x^n\right))\right)^2 dx$$

```
[In] int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^2,x)
[Out] int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^2,x)
```

Fricas [F]

$$\int (ex)^m \csc^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^2,x, algorithm="fricas")
[Out] integral((e*x)^m*csc(b*d*log(c*x^n) + a*d)^2, x)
```

Sympy [F]

$$\int (ex)^m \csc^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \csc^2\left(ad+bd\log\left(cx^n\right)\right)dx$$

```
[In] integrate((e*x)**m*csc(d*(a+b*ln(c*x**n)))**2,x)
[Out] Integral((e*x)**m*csc(a*d + b*d*log(c*x**n))**2, x)
```

Maxima [F]

$$\int (ex)^m \csc^2\left(d(a+b\log\left(cx^n\right))\right)\,dx = \int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^2,x, algorithm="maxima")
[Out] (2*e^m*x*x^m*cos(2*b*d*log(x^n) + 2*a*d)*sin(2*b*d*log(c)) + 2*e^m*x*x^m*co
s(2*b*d*log(c))*sin(2*b*d*log(x^n) + 2*a*d) + (((b^2*d^2*cos(2*b*d*log(c))^
2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*log(c))^2 + b^2
*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*cos(2*b*d*log(x^n) + 2*a*d)^2 + ((b^2*d^
2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2
*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*sin(2*b*d*log(x^n) +
 2*a*d)^2 - 2*(b^2*d^2*e^m*m*cos(2*b*d*log(c)) + b^2*d^2*e^m*cos(2*b*d*log(
c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^2*d^2*e^m*m*sin(2*b*d*log(c)) +
 b^2*d^2*e^m*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a*d) + (b^2*d^2*
```

```
e^m*m + b^2*d^2*e^m)*n^2)*integrate((x^m*cos(b*d*log(x^n) + a*d)*sin(b*d*lo
g(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2*d^2*n^2*cos(b*d
*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*log(c))*sin(b*d*lo
g(x^n) + a*d) + b^2*d^2*n^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2*d^2*sin(b*d*
log(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 + (b^2*d^2*cos(b*d*log(c))^2 + b^2
*d^2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x) - (((b^2*d^2*cos
(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m + (b^2*d^2*cos(2*b*d*
log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*cos(2*b*d*log(x^n) + 2*a*
d)^2 + ((b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m*m +
 (b^2*d^2*cos(2*b*d*log(c))^2 + b^2*d^2*sin(2*b*d*log(c))^2)*e^m)*n^2*sin(2
*b*d*log(x^n) + 2*a*d)^2 - 2*(b^2*d^2*e^m*m*cos(2*b*d*log(c)) + b^2*d^2*e^m
*cos(2*b*d*log(c)))*n^2*cos(2*b*d*log(x^n) + 2*a*d) + 2*(b^2*d^2*e^m*m*sin(
2*b*d*log(c)) + b^2*d^2*e^m*sin(2*b*d*log(c)))*n^2*sin(2*b*d*log(x^n) + 2*a
*d) + (b^2*d^2*e^m*m + b^2*d^2*e^m)*n^2)*integrate(-(x^m*cos(b*d*log(x^n) +
 a*d)*sin(b*d*log(c)) + x^m*cos(b*d*log(c))*sin(b*d*log(x^n) + a*d))/(2*b^2
*d^2*n^2*cos(b*d*log(c))*cos(b*d*log(x^n) + a*d) - 2*b^2*d^2*n^2*sin(b*d*lo
g(c))*sin(b*d*log(x^n) + a*d) - b^2*d^2*n^2 - (b^2*d^2*cos(b*d*log(c))^2 +
b^2*d^2*sin(b*d*log(c))^2)*n^2*cos(b*d*log(x^n) + a*d)^2 - (b^2*d^2*cos(b*d
*log(c))^2 + b^2*d^2*sin(b*d*log(c))^2)*n^2*sin(b*d*log(x^n) + a*d)^2), x))
/(2*b*d*n*cos(2*b*d*log(c))*cos(2*b*d*log(x^n) + 2*a*d) - 2*b*d*n*sin(2*b*d
*log(c))*sin(2*b*d*log(x^n) + 2*a*d) - (b*d*cos(2*b*d*log(c))^2 + b*d*sin(2
*b*d*log(c))^2)*n*cos(2*b*d*log(x^n) + 2*a*d)^2 - (b*d*cos(2*b*d*log(c))^2
+ b*d*sin(2*b*d*log(c))^2)*n*sin(2*b*d*log(x^n) + 2*a*d)^2 - b*d*n)
```

Giac [F]

$$\int (ex)^m \csc^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^2\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^2,x, algorithm="giac")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d)^2, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \csc^2\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int \frac{{\left(e\,x\right)}^m}{{\sin\left(d\,\left(a+b\,\ln\left(c\,x^n\right)\right)\right)}^2}\,dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^2,x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n)))^2, x)
```

3.322 $\int (ex)^m \csc(d(a+b\log(cx^n)))\,dx$

Optimal result 2758
Rubi [A] (verified) 2758
Mathematica [A] (verified) 2759
Maple [F] 2760
Fricas [F] 2760
Sympy [F] 2760
Maxima [F] 2760
Giac [F] 2761
Mupad [F(-1)] 2761

Optimal result

Integrand size = 19, antiderivative size = 123

$$\int (ex)^m \csc(d(a+b\log(cx^n)))\,dx = \frac{2e^{iad}(ex)^{1+m}(cx^n)^{ibd}\,\text{Hypergeometric2F1}\left(1,-\frac{i+im-bdn}{2bdn},-\frac{i(1+m)-3bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(i(1+m)-bdn)}$$

```
[Out] 2*exp(I*a*d)*(e*x)^(1+m)*(c*x^n)^(I*b*d)*hypergeom([1, 1/2*(-I-I*m+b*d*n)/b
/d/n],[1/2*(-I*(1+m)+3*b*d*n)/b/d/n],exp(2*I*a*d)*(c*x^n)^(2*I*b*d))/e/(I*(
1+m)-b*d*n)
```

Rubi [A] (verified)

Time = 0.09 (sec) , antiderivative size = 118, normalized size of antiderivative = 0.96, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4602, 371}

$$\int (ex)^m \csc(d(a+b\log(cx^n)))\,dx = \frac{2e^{iad}(ex)^{m+1}(cx^n)^{ibd}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i(m+1)}{bdn}\right),-\frac{i(m+1)-3bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{e(-bdn+i(m+1))}$$

```
[In] Int[(e*x)^m*Csc[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (2*E^(I*a*d)*(e*x)^(1 + m)*(c*x^n)^(I*b*d)*Hypergeometric2F1[1, (1 - (I*(1
+ m))/(b*d*n))/2, -1/2*(I*(1 + m) - 3*b*d*n)/(b*d*n), E^((2*I)*a*d)*(c*x^n)
^((2*I)*b*d)])/(e*(I*(1 + m) - b*d*n))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4602

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[(-2*I)^p*E^(I*a*d*p), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(
2*I*b*d))^p), x], x] /; FreeQ[{a, b, d, e, m}, x] && IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}\,(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= -\frac{\left(2ie^{iad}(ex)^{1+m}\,(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+ibd+\frac{1+m}{n}}}{1-e^{2iad}x^{2ibd}}\,dx,x,cx^n\right)}{en}$$

$$= \frac{2e^{iad}(ex)^{1+m}\,(cx^n)^{ibd}\,\text{Hypergeometric2F1}\left(1,\frac{1}{2}\left(1-\frac{i(1+m)}{bdn}\right),-\frac{i(1+m)-3bdn}{2bdn},e^{2iad}(cx^n)^{2ibd}\right)}{i(e+em)-bden}$$

Mathematica [A] (verified)

Time = 0.29 (sec) , antiderivative size = 181, normalized size of antiderivative = 1.47

$$\int (ex)^m\csc\left(d(a+b\log\left(cx^n\right))\right)\,dx$$

$$= \frac{2x^{1+ibdn}(ex)^m\,\text{Hypergeometric2F1}\left(1,\frac{-i-im+bdn}{2bdn},-\frac{i(1+m+3ibdn)}{2bdn},x^{2ibdn}(\cos\left(2d(a+b(-n\log(x)+\log\left(cx^n\right.\right.\right.\right.}{}$$

```
[In] Integrate[(e*x)^m*Csc[d*(a + b*Log[c*x^n])],x]
```

```
[Out] (2*x^(1 + I*b*d*n)*(e*x)^m*Hypergeometric2F1[1, (-I - I*m + b*d*n)/(2*b*d*n
), ((-1/2*I)*(1 + m + (3*I)*b*d*n))/(b*d*n), x^((2*I)*b*d*n)*(Cos[2*d*(a +
b*(-(n*Log[x]) + Log[c*x^n]))] + I*Sin[2*d*(a + b*(-(n*Log[x]) + Log[c*x^n]
))])]*((-I)*Cos[d*(a + b*(-(n*Log[x]) + Log[c*x^n]))] + Sin[d*(a + b*(-(n*L
og[x]) + Log[c*x^n]))]))/(1 + m + I*b*d*n)
```

Maple [F]

$$\int (ex)^m \csc (d(a + b\ln (c\,x^n)))\,dx$$

```
[In] int((e*x)^m*csc(d*(a+b*ln(c*x^n))),x)
[Out] int((e*x)^m*csc(d*(a+b*ln(c*x^n))),x)
```

Fricas [F]

$$\int (ex)^m \csc (d(a + b\log (cx^n)))\ dx = \int (ex)^m \csc ((b\log (cx^n) + a)d)\ dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n))),x, algorithm="fricas")
[Out] integral((e*x)^m*csc(b*d*log(c*x^n) + a*d), x)
```

Sympy [F]

$$\int (ex)^m \csc (d(a + b\log (cx^n)))\ dx = \int (ex)^m \csc (ad + bd\log (cx^n))\,dx$$

```
[In] integrate((e*x)**m*csc(d*(a+b*ln(c*x**n))),x)
[Out] Integral((e*x)**m*csc(a*d + b*d*log(c*x**n)), x)
```

Maxima [F]

$$\int (ex)^m \csc (d(a + b\log (cx^n)))\ dx = \int (ex)^m \csc ((b\log (cx^n) + a)d)\ dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n))),x, algorithm="maxima")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d), x)
```

Giac [F]

$$\int (ex)^m \csc (d(a + b \log (cx^n))) \, dx = \int (ex)^m \csc ((b \log (cx^n) + a)d) \, dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n))),x, algorithm="giac")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d), x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \csc (d(a + b \log (cx^n))) \, dx = \int \frac{(e\,x)^m}{\sin \left(d\,\left(a + b\,\ln \left(c\,x^n\right)\right)\right)} \, dx$$

```
[In] int((e*x)^m/sin(d*(a + b*log(c*x^n))),x)
[Out] int((e*x)^m/sin(d*(a + b*log(c*x^n))), x)
```

3.323 $\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx$

Optimal result . . . 2762
Rubi [A] (verified) . . . 2762
Mathematica [A] (verified) . . . 2763
Maple [F] . . . 2764
Fricas [F(-2)] . . . 2764
Sympy [F(-1)] . . . 2764
Maxima [F] . . . 2765
Giac [F(-1)] . . . 2765
Mupad [F(-1)] . . . 2765

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \frac{2x^{1+m}\left(1 - e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}(a + b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{5}{2}, -\frac{2i+2im-5bn}{4bn}, -\frac{2i+2im-9bn}{4bn}, e^{2ia}(cx^n)^{2ib}\right)}{2 + 2m + 5ibn}$$

```
[Out] 2*x^(1+m)*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(5/2)*csc(a+b*ln(c*x^n))^(5/2)*hyp
ergeom([5/2, 1/4*(-2*I-2*I*m+5*b*n)/b/n],[1/4*(-2*I-2*I*m+9*b*n)/b/n],exp(2
*I*a)*(c*x^n)^(2*I*b))/(2+2*m+5*I*b*n)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4604, 371}

$$\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \frac{2x^{m+1}\left(1 - e^{2ia}(cx^n)^{2ib}\right)^{5/2}\text{Hypergeometric2F1}\left(\frac{5}{2}, \frac{1}{4}\left(5 - \frac{2i(m+1)}{bn}\right), -\frac{2im-9bn+2i}{4bn}, e^{2ia}(cx^n)^{2ib}\right)\csc^{\frac{5}{2}}(a + b\log(cx^n))}{5ibn + 2m + 2}$$

```
[In] Int[x^m*Csc[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(5/2)*Csc[a + b*Log[c*x^n]
]^(5/2)*Hypergeometric2F1[5/2, (5 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (
2*I)*m - 9*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(2 + 2*m + (5*I)*b*n
)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc^{\frac{5}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{5ib}{2}-\frac{1+m}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int\frac{x^{-1+\frac{5ib}{2}+\frac{1+m}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{5/2}}\,dx,x,cx^n\right.}{n}$$

$$= \frac{2x^{1+m}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{5/2}\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(\frac{5}{2},\frac{1}{4}\left(5-\frac{2i(1+m)}{bn}\right),-\frac{2i+2in}{4b}\right.}{2+2m+5ibn}$$

Mathematica [A] (verified)

Time = 2.28 (sec) , antiderivative size = 165, normalized size of antiderivative = 1.27

$$\int x^m\csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx$$

$$= \frac{2x^{1+m}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\left(-2-2m-bn\cot\left(a+b\log\left(cx^n\right)\right)+e^{-2ia}(2+2m+ibn)\left(cx^n\right)^{-2ib}\left(-1+\right.\right.}{3b^2n^2}$$

```
[In] Integrate[x^m*Csc[a + b*Log[c*x^n]]^(5/2),x]
```

```
[Out] (2*x^(1 + m)*Sqrt[Csc[a + b*Log[c*x^n]]]*(-2 - 2*m - b*n*Cot[a + b*Log[c*x^
n]] + ((2 + 2*m + I*b*n)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Hypergeometri
c2F1[1, (2*I + (2*I)*m + 3*b*n)/(4*b*n), (2*I + (2*I)*m + 5*b*n)/(4*b*n), E
^((-2*I)*(a + b*Log[c*x^n]))])/(E^((2*I)*a)*(c*x^n)^((2*I)*b))))/(3*b^2*n^2
)
```

Maple [F]

$$\int x^{m}\csc\left(a+b\ln\left(c\,x^{n}\right)\right)^{\frac{5}{2}}dx$$

```
[In] int(x^m*csc(a+b*ln(c*x^n))^(5/2),x)
```

```
[Out] int(x^m*csc(a+b*ln(c*x^n))^(5/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Exception raised: TypeError}$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(5/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (constant residues)
```

Sympy [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{5}{2}}\left(a+b\log\left(cx^n\right)\right)\,dx=\text{Timed out}$$

```
[In] integrate(x**m*csc(a+b*ln(c*x**n))**(5/2),x)
```

```
[Out] Timed out
```

Maxima [F]

$$\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \int x^m \csc(b\log(cx^n) + a)^{\frac{5}{2}}\,dx$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(5/2),x, algorithm="maxima")
[Out] integrate(x^m*csc(b*log(c*x^n) + a)^(5/2), x)
```

Giac [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \text{Timed out}$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(5/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{5}{2}}(a + b\log(cx^n))\,dx = \int x^m \left(\frac{1}{\sin(a + b\ln(c\,x^n))}\right)^{5/2} dx$$

```
[In] int(x^m*(1/sin(a + b*log(c*x^n)))^(5/2),x)
[Out] int(x^m*(1/sin(a + b*log(c*x^n)))^(5/2), x)
```

3.324 $\int x^m \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx$

Optimal result . . . 2766
Rubi [A] (verified) . . . 2766
Mathematica [B] (verified) . . . 2767
Maple [F] . . . 2768
Fricas [F(-2)] . . . 2768
Sympy [F(-1)] . . . 2768
Maxima [F] . . . 2769
Giac [F(-1)] . . . 2769
Mupad [F(-1)] . . . 2769

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{1+m}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{3}{2},-\frac{2i+2im-3bn}{4bn},-\frac{2i+2im-7bn}{4bn},e^{2ia}(cx\right.}{2+2m+3ibn}$$

```
[Out] 2*x^(1+m)*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(3/2)*csc(a+b*ln(c*x^n))^(3/2)*hyp
ergeom([3/2, 1/4*(-2*I-2*I*m+3*b*n)/b/n],[1/4*(-2*I-2*I*m+7*b*n)/b/n],exp(2
*I*a)*(c*x^n)^(2*I*b))/(2+2*m+3*I*b*n)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4604, 371}

$$\int x^m \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx = \frac{2x^{m+1}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(m+1)}{bn}\right),-\frac{2im-7bn+2i}{4bn},e^{2ia}(cx^n)^{2ib}\right)\csc^{\frac{3}{2}}(a+b\,\mathrm{l}}{3ibn+2m+2}$$

```
[In] Int[x^m*Csc[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Csc[a + b*Log[c*x^n]
]^(3/2)*Hypergeometric2F1[3/2, (3 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(2*I + (
2*I)*m - 7*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(2 + 2*m + (3*I)*b*n
)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc^{\frac{3}{2}}(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{3ib}{2}-\frac{1+m}{n}}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))\right)\text{Subst}\left(\int\frac{x^{-1+\frac{3ib}{2}+\frac{1+m}{n}}}{\left(1-e^{2ia}x^{2ib}\right)^{3/2}}\,dx,x,cx^{n}\right.}{n}$$

$$= \frac{2x^{1+m}\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(\frac{3}{2},\frac{1}{4}\left(3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2in}{4b}\right.}{2+2m+3ibn}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 466 vs. 2(130) = 260.

Time = 7.34 (sec) , antiderivative size = 466, normalized size of antiderivative = 3.58

$$\int x^m\csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx$$

$$= \frac{x^{1+m-ibn}\left(\left(4+8m+4m^2+b^2n^2\right)x^{2ibn}\sqrt{2-2e^{2ia}(cx^n)^{2ib}}\sqrt{\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{i(1+\right.\right.}{}$$

[In] Integrate[x^m*Csc[a + b*Log[c*x^n]]^(3/2),x]

[Out] (x^(1 + m - I*b*n)*((4 + 8*m + 4*m^2 + b^2*n^2)*x^((2*I)*b*n)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Hypergeometric2F1[1/2, ((-1/2*I)*(1 + m + ((3*I)/2)*b*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)] + (-2*I - (2*I)*m + 3*b*n)*((-2*I - (2*I)*m + b*n)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)] - 2*x^(I*b*n)*Sqrt[Csc[a + b*Log[c*x^n]]]*(b*n*Cos[b*n*Log[x]] - 2*(1 + m)*Sin[b*n*Log[x]]))))/(b*n*(-2*I - (2*I)*m + 3*b*n)*(b*n*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + 2*(1 + m)*Sin[a - b*n*Log[x] + b*Log[c*x^n]]))

Maple [F]

$$\int x^{m}\csc\left(a +b\ln\left(c\,x^{n}\right)\right)^{\frac{3}{2}}d x$$

[In] int(x^m*csc(a+b*ln(c*x^n))^(3/2),x)

[Out] int(x^m*csc(a+b*ln(c*x^n))^(3/2),x)

Fricas [F(-2)]

Exception generated.

$$\int x^m \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx=\text{Exception raised: TypeError}$$

[In] integrate(x^m*csc(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")

[Out] Exception raised: TypeError >> Error detected within library code: integrate: implementation incomplete (constant residues)

Sympy [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{3}{2}}(a+b\log(cx^n))\,dx=\text{Timed out}$$

[In] integrate(x**m*csc(a+b*ln(c*x**n))**(3/2),x)

[Out] Timed out

Maxima [F]

$$\int x^m \csc^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \int x^m \csc(b\log(cx^n) + a)^{\frac{3}{2}}\, dx$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m*csc(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \text{Timed out}$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] Timed out
```

Mupad [F(-1)]

Timed out.

$$\int x^m \csc^{\frac{3}{2}}(a + b\log(cx^n))\, dx = \int x^m \left(\frac{1}{\sin(a + b\,\ln(c\,x^n))}\right)^{3/2} dx$$

```
[In] int(x^m*(1/sin(a + b*log(c*x^n)))^(3/2),x)
[Out] int(x^m*(1/sin(a + b*log(c*x^n)))^(3/2), x)
```

3.325 $\int x^m \sqrt{\csc(a+b\log(cx^n))}\,dx$

Optimal result 2770
Rubi [A] (verified) 2770
Mathematica [A] (verified) 2771
Maple [F] 2772
Fricas [F(-2)] 2772
Sympy [F] 2772
Maxima [F] 2772
Giac [F] 2773
Mupad [F(-1)] 2773

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int x^m \sqrt{\csc(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\sqrt{1-e^{2ia}(cx^n)^{2ib}}\sqrt{\csc(a+b\log(cx^n))}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bn}{4bn},-\frac{2i+2im-5bn}{4bn},e^{2ia}(cx^n)^{2}\right.}{2+2m+ibn}$$

```
[Out] 2*x^(1+m)*hypergeom([1/2, 1/4*(-2*I-2*I*m+b*n)/b/n],[1/4*(-2*I-2*I*m+5*b*n)
/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^(1/2)*csc(
a+b*ln(c*x^n))^(1/2)/(2+2*m+I*b*n)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 130, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4604, 371}

$$\int x^m \sqrt{\csc(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\sqrt{1-e^{2ia}(cx^n)^{2ib}}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2im-bn+2i}{4bn},-\frac{2im-5bn+2i}{4bn},e^{2ia}(cx^n)^{2ib}\right)\sqrt{\csc(a+b\log(cx}}{ibn+2m+2}$$

```
[In] Int[x^m*Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Csc[a + b*Log[c*x
^n]]]*Hypergeometric2F1[1/2, -1/4*(2*I + (2*I)*m - b*n)/(b*n), -1/4*(2*I +
(2*I)*m - 5*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(2 + 2*m + I*b*n)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\sqrt{\csc(a+b\log(x))}\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^{1+m}(cx^n)^{-\frac{ib}{2}-\frac{1+m}{n}}\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{ib}{2}+\frac{1+m}{n}}}{\sqrt{1-e^{2ia}x^{2ib}}}\,dx,x,cx^n\right)}{n}$$

$$= \frac{2x^{1+m}\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{2i+2im-bn}{4bn},-\frac{2i+2im-5bn}{4bn},e\right.}{2+2m+ibn}$$

Mathematica [A] (verified)

Time = 0.69 (sec) , antiderivative size = 138, normalized size of antiderivative = 1.06

$$\int x^m\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,dx$$

$$= \frac{2e^{-2ia}x^{1+m}(cx^n)^{-2ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}\,\text{Hypergeometric2F1}\left(1,\frac{2i+2im+3bn}{4bn},\frac{2i+2im-}{4bn}\right.}{2+2m-ibn}$$

```
[In] Integrate[x^m*Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Sqrt[Csc[a + b*Log[c*x^n]
]]*Hypergeometric2F1[1, (2*I + (2*I)*m + 3*b*n)/(4*b*n), (2*I + (2*I)*m + 5
*b*n)/(4*b*n), E^((-2*I)*(a + b*Log[c*x^n]))])/(E^((2*I)*a)*(2 + 2*m - I*b*
n)*(c*x^n)^((2*I)*b))
```

Maple [F]

$$\int x^m \sqrt{\csc (a+b\ln (c\,x^n))}dx$$

```
[In] int(x^m*csc(a+b*ln(c*x^n))^(1/2),x)
[Out] int(x^m*csc(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int x^m \sqrt{\csc (a+b\log (cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int x^m \sqrt{\csc (a+b\log (cx^n))}\,dx = \int x^m \sqrt{\csc (a+b\log (cx^n))}\,dx$$

```
[In] integrate(x**m*csc(a+b*ln(c*x**n))**(1/2),x)
[Out] Integral(x**m*sqrt(csc(a + b*log(c*x**n))), x)
```

Maxima [F]

$$\int x^m \sqrt{\csc (a+b\log (cx^n))}\,dx = \int x^m \sqrt{\csc (b\log (cx^n)+a)}\,dx$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")
[Out] integrate(x^m*sqrt(csc(b*log(c*x^n) + a)), x)
```

Giac [F]

$$\int x^m \sqrt{\csc\left(a + b\log\left(cx^n\right)\right)}\,dx = \int x^m \sqrt{\csc\left(b\log\left(cx^n\right) + a\right)}\,dx$$

```
[In] integrate(x^m*csc(a+b*log(c*x^n))^(1/2),x, algorithm="giac")
[Out] integrate(x^m*sqrt(csc(b*log(c*x^n) + a)), x)
```

Mupad [F(-1)]

Timed out.

$$\int x^m \sqrt{\csc\left(a + b\log\left(cx^n\right)\right)}\,dx = \int x^m \sqrt{\frac{1}{\sin\left(a + b\,\ln\left(c\,x^n\right)\right)}}\,dx$$

```
[In] int(x^m*(1/sin(a + b*log(c*x^n)))^(1/2),x)
[Out] int(x^m*(1/sin(a + b*log(c*x^n)))^(1/2), x)
```

3.326 $\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}} \, dx$

Optimal result 2774
Rubi [A] (verified) 2774
Mathematica [B] (verified) 2775
Maple [F] 2776
Fricas [F(-2)] 2776
Sympy [F] 2777
Maxima [F] 2777
Giac [F] 2777
Mupad [F(-1)] 2777

Optimal result

Integrand size = 19, antiderivative size = 129

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}} \, dx = \frac{2x^{1+m} \text{Hypergeometric2F1}\left(-\frac{1}{2}, -\frac{2i+2im+bn}{4bn}, -\frac{2i+2im-3bn}{4bn}, e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-ibn)\sqrt{1-e^{2ia}(cx^n)^{2ib}}\sqrt{\csc(a+b\log(cx^n))}}$$

```
[Out] 2*x^(1+m)*hypergeom([-1/2, 1/4*(-2*I-2*I*m-b*n)/b/n],[1/4*(-2*I-2*I*m+3*b*n
)/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+2*m-I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2*I
*b))^(1/2)/csc(a+b*ln(c*x^n))^(1/2)
```

Rubi [A] (verified)

Time = 0.11 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.98, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4604, 371}

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}} \, dx = \frac{2x^{m+1} \text{Hypergeometric2F1}\left(-\frac{1}{2}, \frac{1}{4}\left(-\frac{2i(m+1)}{bn}-1\right), -\frac{2im-3bn+2i}{4bn}, e^{2ia}(cx^n)^{2ib}\right)}{(-ibn+2m+2)\sqrt{1-e^{2ia}(cx^n)^{2ib}}\sqrt{\csc(a+b\log(cx^n))}}$$

```
[In] Int[x^m/Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (2*x^(1 + m)*Hypergeometric2F1[-1/2, (-1 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(
2*I + (2*I)*m - 3*b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 + 2*m - I
*b*n)*Sqrt[1 - E^((2*I)*a)*(c*x^n)^((2*I)*b)]*Sqrt[Csc[a + b*Log[c*x^n]]])
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int\frac{x^{-1+\frac{1+m}{n}}}{\sqrt{\csc(a+b\log(x))}}\,dx,x,cx^n\right)}{n}\\
&= \frac{\left(x^{1+m}(cx^n)^{\frac{ib}{2}-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{ib}{2}+\frac{1+m}{n}}\sqrt{1-e^{2ia}x^{2ib}}\,dx,x,cx^n\right)}{n\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}\\
&= \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{1}{2},\frac{1}{4}\left(-1-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-3bn}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-ibn)\sqrt{1-e^{2ia}\left(cx^n\right)^{2ib}}\sqrt{\csc\left(a+b\log\left(cx^n\right)\right)}}
\end{aligned}$$

Mathematica [B] (verified)

Both result and optimal contain complex but leaf count is larger than twice the leaf count of optimal. 441 vs. 2(129) = 258.

Time = 5.48 (sec) , antiderivative size = 441, normalized size of antiderivative = 3.42

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = -\frac{2be^{ia}nx^{1+m}(cx^n)^{ib}\sqrt{2-2e^{2ia}(cx^n)^{2ib}}\sqrt{\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}}\left((2i+2im+bn)x^{2ibn}\,\text{Hypergeometric2F1}\left(\frac{1}{2},-\frac{i}{}\right.\right.}{(2+2m-ibn)(2+2m+3ibn)\left(\right.} + \frac{2x^{1+m}\sin(a-bn\log(x)+b\log(cx^n))}{\sqrt{\csc(a+b\log(cx^n))}\,(bn\cos(a-bn\log(x)+b\log(cx^n))+2(1+m)\sin(a-bn\log(x)+b\log(cx^n)))}$$

```
[In] Integrate[x^m/Sqrt[Csc[a + b*Log[c*x^n]]],x]
```

```
[Out] (-2*b*E^(I*a)*n*x^(1 + m)*(c*x^n)^(I*b)*Sqrt[2 - 2*E^((2*I)*a)*(c*x^n)^((2*
I)*b)]*Sqrt[(I*E^(I*a)*(c*x^n)^(I*b))/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))]
*((2*I + (2*I)*m + b*n)*x^((2*I)*b*n)*Hypergeometric2F1[1/2, ((-1/2*I)*(1 +
 m + ((3*I)/2)*b*n))/(b*n), -1/4*(2*I + (2*I)*m - 7*b*n)/(b*n), E^((2*I)*a)
*(c*x^n)^((2*I)*b)] + (-2*I - (2*I)*m + 3*b*n)*Hypergeometric2F1[1/2, -1/4*
(2*I + (2*I)*m + b*n)/(b*n), -1/4*(2*I + (2*I)*m - 3*b*n)/(b*n), E^((2*I)*a
)*(c*x^n)^((2*I)*b)]))/((2 + 2*m - I*b*n)*(2 + 2*m + (3*I)*b*n)*((2*I + (2*
I)*m + b*n)*x^((2*I)*b*n) + E^((2*I)*a)*(-2*I - (2*I)*m + b*n)*(c*x^n)^((2*
I)*b))) + (2*x^(1 + m)*Sin[a - b*n*Log[x] + b*Log[c*x^n]])/(Sqrt[Csc[a + b*
Log[c*x^n]]]*(b*n*Cos[a - b*n*Log[x] + b*Log[c*x^n]] + 2*(1 + m)*Sin[a - b*
n*Log[x] + b*Log[c*x^n]]))
```

Maple [F]

$$\int \frac{x^m}{\sqrt{\csc(a+b\ln(c\,x^n))}}dx$$

```
[In] int(x^m/csc(a+b*ln(c*x^n))^(1/2),x)
```

```
[Out] int(x^m/csc(a+b*ln(c*x^n))^(1/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/csc(a+b*log(c*x^n))^(1/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx$$

[In] integrate(x**m/csc(a+b*ln(c*x**n))**(1/2),x)

[Out] Integral(x**m/sqrt(csc(a + b*log(c*x**n))), x)

Maxima [F]

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\csc(b\log(cx^n)+a)}}\,dx$$

[In] integrate(x^m/csc(a+b*log(c*x^n))^(1/2),x, algorithm="maxima")

[Out] integrate(x^m/sqrt(csc(b*log(c*x^n) + a)), x)

Giac [F]

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\csc(b\log(cx^n)+a)}}\,dx$$

[In] integrate(x^m/csc(a+b*log(c*x^n))^(1/2),x, algorithm="giac")

[Out] integrate(x^m/sqrt(csc(b*log(c*x^n) + a)), x)

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\sqrt{\csc(a+b\log(cx^n))}}\,dx = \int \frac{x^m}{\sqrt{\frac{1}{\sin(a+b\,\ln(c\,x^n))}}}\,dx$$

[In] int(x^m/(1/sin(a + b*log(c*x^n)))^(1/2),x)

[Out] int(x^m/(1/sin(a + b*log(c*x^n)))^(1/2), x)

3.327 $\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$

Optimal result 2778
Rubi [A] (verified) 2778
Mathematica [A] (verified) 2780
Maple [F] 2780
Fricas [F(-2)] 2780
Sympy [F] 2781
Maxima [F] 2781
Giac [F] 2781
Mupad [F(-1)] 2781

Optimal result

Integrand size = 19, antiderivative size = 130

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},-\frac{2i+2im+3bn}{4bn},-\frac{2i+2im-bn}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-3ibn)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[Out] 2*x^(1+m)*hypergeom([-3/2, 1/4*(-2*I-2*I*m-3*b*n)/b/n],[1/4*(-2*I-2*I*m+b*n
)/b/n],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+2*m-3*I*b*n)/(1-exp(2*I*a)*(c*x^n)^(2
*I*b))^(3/2)/csc(a+b*ln(c*x^n))^(3/2)
```

Rubi [A] (verified)

Time = 0.12 (sec) , antiderivative size = 126, normalized size of antiderivative = 0.97, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.158, Rules used = {4606, 4604, 371}

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \frac{2x^{m+1}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-\frac{2i(m+1)}{bn}-3\right),-\frac{2im-bn+2i}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(-3ibn+2m+2)\left(1-e^{2ia}(cx^n)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}(a+b\log(cx^n))}$$

```
[In] Int[x^m/Csc[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*Hypergeometric2F1[-3/2, (-3 - ((2*I)*(1 + m))/(b*n))/4, -1/4*(
2*I + (2*I)*m - b*n)/(b*n), E^((2*I)*a)*(c*x^n)^((2*I)*b)])/((2 + 2*m - (3*
```

```
I)*b*n)*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^(3/2)*Csc[a + b*Log[c*x^n]]^(3/
2))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$
\begin{aligned}
\text{integral} &= \frac{\left(x^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int \frac{x^{-1+\frac{1+m}{n}}}{\csc^{\frac{3}{2}}(a+b\log(x))}\,dx, x, cx^n\right)}{n} \\
&= \frac{\left(x^{1+m}(cx^n)^{\frac{3ib}{2}-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1-\frac{3ib}{2}+\frac{1+m}{n}}\left(1-e^{2ia}x^{2ib}\right)^{3/2}\,dx, x, cx^n\right)}{n\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)} \\
&= \frac{2x^{1+m}\,\text{Hypergeometric2F1}\left(-\frac{3}{2},\frac{1}{4}\left(-3-\frac{2i(1+m)}{bn}\right),-\frac{2i+2im-bn}{4bn},e^{2ia}(cx^n)^{2ib}\right)}{(2+2m-3ibn)\left(1-e^{2ia}\left(cx^n\right)^{2ib}\right)^{3/2}\csc^{\frac{3}{2}}\left(a+b\log\left(cx^n\right)\right)}
\end{aligned}
$$

Mathematica [A] (verified)

Time = 1.72 (sec) , antiderivative size = 218, normalized size of antiderivative = 1.68

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$
$$= \frac{2x^{1+m}\Big((2+2m-ibn)(2+2m-3bn\cot(a+b\log(cx^n)))+3b^2e^{-2ia}n^2(cx^n)^{-2ib}\left(-1+e^{2ia}(cx^n)^{2ib}\right)\csc^2}{(2+2m-ibn)(2+2m-3ibn)(2+2m+3ibn)}$$

```
[In] Integrate[x^m/Csc[a + b*Log[c*x^n]]^(3/2),x]
```

```
[Out] (2*x^(1 + m)*((2 + 2*m - I*b*n)*(2 + 2*m - 3*b*n*Cot[a + b*Log[c*x^n]]) + (
3*b^2*n^2*(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b))*Csc[a + b*Log[c*x^n]]^2*Hype
rgeometric2F1[1, (2*I + (2*I)*m + 3*b*n)/(4*b*n), (2*I + (2*I)*m + 5*b*n)/(
4*b*n), E^((-2*I)*(a + b*Log[c*x^n]))])/(E^((2*I)*a)*(c*x^n)^((2*I)*b))))/(
(2 + 2*m - I*b*n)*(2 + 2*m - (3*I)*b*n)*(2 + 2*m + (3*I)*b*n)*Csc[a + b*Log
[c*x^n]]^(3/2))
```

Maple [F]

$$\int \frac{x^m}{\csc\left(a+b\ln\left(c\,x^n\right)\right)^{\frac{3}{2}}}dx$$

```
[In] int(x^m/csc(a+b*ln(c*x^n))^(3/2),x)
```

```
[Out] int(x^m/csc(a+b*ln(c*x^n))^(3/2),x)
```

Fricas [F(-2)]

Exception generated.

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \text{Exception raised: TypeError}$$

```
[In] integrate(x^m/csc(a+b*log(c*x^n))^(3/2),x, algorithm="fricas")
```

```
[Out] Exception raised: TypeError >>  Error detected within library code:   integ
rate: implementation incomplete (has polynomial part)
```

Sympy [F]

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx$$

```
[In] integrate(x**m/csc(a+b*ln(c*x**n))**(3/2),x)
[Out] Integral(x**m/csc(a + b*log(c*x**n))**(3/2), x)
```

Maxima [F]

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\csc(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(x^m/csc(a+b*log(c*x^n))^(3/2),x, algorithm="maxima")
[Out] integrate(x^m/csc(b*log(c*x^n) + a)^(3/2), x)
```

Giac [F]

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\csc(b\log(cx^n)+a)^{\frac{3}{2}}}\,dx$$

```
[In] integrate(x^m/csc(a+b*log(c*x^n))^(3/2),x, algorithm="giac")
[Out] integrate(x^m/csc(b*log(c*x^n) + a)^(3/2), x)
```

Mupad [F(-1)]

Timed out.

$$\int \frac{x^m}{\csc^{\frac{3}{2}}(a+b\log(cx^n))}\,dx = \int \frac{x^m}{\left(\frac{1}{\sin(a+b\,\ln(c\,x^n))}\right)^{3/2}}\,dx$$

```
[In] int(x^m/(1/sin(a + b*log(c*x^n)))^(3/2),x)
[Out] int(x^m/(1/sin(a + b*log(c*x^n)))^(3/2), x)
```

3.328 $\int (ex)^m \csc^p(d(a+b\log(cx^n)))\,dx$

Optimal result 2782
Rubi [A] (verified) 2782
Mathematica [A] (verified) 2783
Maple [F] 2784
Fricas [F] 2784
Sympy [F] 2784
Maxima [F] 2784
Giac [F] 2785
Mupad [F(-1)] 2785

Optimal result

Integrand size = 21, antiderivative size = 139

$$\int (ex)^m \csc^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p \csc^p(d(a+b\log(cx^n)))\,\text{Hypergeometric2F1}\left(p,-\frac{i+im-bdnp}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}+\right.\right.}{e(1+m+ibdnp)}$$

```
[Out] (e*x)^(1+m)*(1-exp(2*I*a*d)*(c*x^n)^(2*I*b*d))^p*csc(d*(a+b*ln(c*x^n)))^p*h
ypergeom([p, 1/2*(-I-I*m+b*d*n*p)/b/d/n],[1-1/2*I*(1+m)/b/d/n+1/2*p],exp(2*
I*a*d)*(c*x^n)^(2*I*b*d))/e/(1+m+I*b*d*n*p)
```

Rubi [A] (verified)

Time = 0.13 (sec) , antiderivative size = 133, normalized size of antiderivative = 0.96, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.143, Rules used = {4606, 4604, 371}

$$\int (ex)^m \csc^p(d(a+b\log(cx^n)))\,dx = \frac{(ex)^{m+1}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p \text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(p-\frac{i(m+1)}{bdn}\right),\frac{1}{2}\left(-\frac{i(m+1)}{bdn}+p+2\right),e^{2iad}(cx^n)^{2ibd}\right)}{e(ibdnp+m+1)}$$

```
[In] Int[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] ((e*x)^(1 + m)*(1 - E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*Csc[d*(a + b*Log[c
*x^n])]^p*Hypergeometric2F1[p, (((-I)*(1 + m))/(b*d*n) + p)/2, (2 - (I*(1 +
 m))/(b*d*n) + p)/2, E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(e*(1 + m + I*b*d*
n*p))
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}}\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}}\csc^p(d(a+b\log(x)))\,dx,x,cx^n\right)}{en}$$

$$= \frac{\left((ex)^{1+m}(cx^n)^{-\frac{1+m}{n}-ibdp}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\csc^p\left(d(a+b\log\left(cx^n\right))\right)\right)\text{Subst}\left(\int x^{-1+\frac{1+m}{n}+ibdp}(1\right.}{en}$$

$$= \frac{(ex)^{1+m}\left(1-e^{2iad}(cx^n)^{2ibd}\right)^p\csc^p\left(d(a+b\log\left(cx^n\right))\right)\text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{i(1+m)}{bdn}+p\right),\frac{1}{2}\right.}{e(1+m+ibdnp)}$$

Mathematica [A] (verified)

Time = 1.28 (sec) , antiderivative size = 169, normalized size of antiderivative = 1.22

$$\int (ex)^m\csc^p\left(d(a+b\log\left(cx^n\right))\right)\,dx$$

$$= \frac{x(ex)^m\left(2-2e^{2iad}(cx^n)^{2ibd}\right)^p\left(\frac{ie^{iad}(cx^n)^{ibd}}{-1+e^{2iad}(cx^n)^{2ibd}}\right)^p\text{Hypergeometric2F1}\left(p,-\frac{i(1+m+ibdnp)}{2bdn},\frac{1}{2}\left(2-\frac{i(1+m)}{bdn}+p\right.\right.}{1+m+ibdnp}$$

```
[In] Integrate[(e*x)^m*Csc[d*(a + b*Log[c*x^n])]^p,x]
```

```
[Out] (x*(e*x)^m*(2 - 2*E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d))^p*((I*E^(I*a*d)*(c*x^n
)^(I*b*d))/(-1 + E^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)))^p*Hypergeometric2F1[p,
 ((-1/2*I)*(1 + m + I*b*d*n*p))/(b*d*n), (2 - (I*(1 + m))/(b*d*n) + p)/2, E
^((2*I)*a*d)*(c*x^n)^((2*I)*b*d)])/(1 + m + I*b*d*n*p)
```

Maple [F]

$$\int (ex)^m \csc\left(d(a+b\ln\left(c\,x^n\right))\right)^p dx$$

```
[In] int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^p,x)
[Out] int((e*x)^m*csc(d*(a+b*ln(c*x^n)))^p,x)
```

Fricas [F]

$$\int (ex)^m \csc^p\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^p,x, algorithm="fricas")
[Out] integral((e*x)^m*csc(b*d*log(c*x^n) + a*d)^p, x)
```

Sympy [F]

$$\int (ex)^m \csc^p\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int (ex)^m \csc^p\left(ad+bd\log\left(cx^n\right)\right)dx$$

```
[In] integrate((e*x)**m*csc(d*(a+b*ln(c*x**n)))**p,x)
[Out] Integral((e*x)**m*csc(a*d + b*d*log(c*x**n))**p, x)
```

Maxima [F]

$$\int (ex)^m \csc^p\left(d(a+b\log\left(cx^n\right))\right)\,dx=\int (ex)^m \csc\left((b\log\left(cx^n\right)+a)d\right)^p\,dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^p,x, algorithm="maxima")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d)^p, x)
```

Giac [F]

$$\int (ex)^m \csc^p(d(a+b\log(cx^n)))\ dx = \int (ex)^m \csc((b\log(cx^n)+a)d)^p\ dx$$

```
[In] integrate((e*x)^m*csc(d*(a+b*log(c*x^n)))^p,x, algorithm="giac")
[Out] integrate((e*x)^m*csc((b*log(c*x^n) + a)*d)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int (ex)^m \csc^p(d(a+b\log(cx^n)))\ dx = \int (e\,x)^m \left(\frac{1}{\sin(d\ (a+b\ \ln(c\,x^n)))}\right)^p dx$$

```
[In] int((e*x)^m*(1/sin(d*(a + b*log(c*x^n))))^p,x)
[Out] int((e*x)^m*(1/sin(d*(a + b*log(c*x^n))))^p, x)
```

3.329 $\int x \csc^p(a+b\log(cx^n))\,dx$

Optimal result 2786
Rubi [A] (verified) 2786
Mathematica [A] (verified) 2787
Maple [F] 2788
Fricas [F] 2788
Sympy [F] 2788
Maxima [F] 2788
Giac [F] 2789
Mupad [F(-1)] 2789

Optimal result

Integrand size = 15, antiderivative size = 106

$$\int x \csc^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^p \csc^p(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{2i}{bn}+p\right),\frac{1}{2}\left(2-\frac{2i}{bn}+p\right),e^{2ia}(cx^n)^{2ib}\right)}{2+ibnp}$$

```
[Out] x^2*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^p*csc(a+b*ln(c*x^n))^p*hypergeom([p, -I/
b/n+1/2*p],[1-I/b/n+1/2*p],exp(2*I*a)*(c*x^n)^(2*I*b))/(2+I*b*n*p)
```

Rubi [A] (verified)

Time = 0.10 (sec) , antiderivative size = 106, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.200, Rules used = {4606, 4604, 371}

$$\int x \csc^p(a+b\log(cx^n))\,dx = \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(p-\frac{2i}{bn}\right),\frac{1}{2}\left(p-\frac{2i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\csc^p(a+b\log(cx^n))}{2+ibnp}$$

```
[In] Int[x*Csc[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x^2*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Csc[a + b*Log[c*x^n]]^p*Hypergeo
metric2F1[p, ((-2*I)/(b*n) + p)/2, (2 - (2*I)/(b*n) + p)/2, E^((2*I)*a)*(c*
x^n)^((2*I)*b)])/(2 + I*b*n*p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rule 4606

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_
.), x_Symbol] :> Dist[(e*x)^(m + 1)/(e*n*(c*x^n)^((m + 1)/n)), Subst[Int[x^
((m + 1)/n - 1)*Csc[d*(a + b*Log[x])]^p, x], x, c*x^n], x] /; FreeQ[{a, b,
c, d, e, m, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rubi steps

$$\text{integral} = \frac{\left(x^2(cx^n)^{-2/n}\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}}\csc^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x^2(cx^n)^{-\frac{2}{n}-ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^p\csc^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{2}{n}+ibp}\left(1-e^{2ia}x^{2ib}\right)^{-p}\,dx,\right.}{n}$$

$$= \frac{x^2\left(1-e^{2ia}(cx^n)^{2ib}\right)^p\csc^p\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(p,\frac{1}{2}\left(-\frac{2i}{bn}+p\right),\frac{1}{2}\left(2-\frac{2i}{bn}+p\right),e\right.}{2+ibnp}$$

Mathematica [A] (verified)

Time = 0.95 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.34

$$\int x\csc^p\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{ix^2\left(2-2e^{2ia}(cx^n)^{2ib}\right)^p\left(\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}\right)^p\text{Hypergeometric2F1}\left(-\frac{i}{bn}+\frac{p}{2},p,1-\frac{i}{bn}+\frac{p}{2},e^{2ia}(cx^n)^{2ib}\right)}{-2i+bnp}$$

```
[In] Integrate[x*Csc[a + b*Log[c*x^n]]^p,x]
```

```
[Out] ((-I)*x^2*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*((I*E^(I*a)*(c*x^n)^(I*b)
)/(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))^p*Hypergeometric2F1[(-I)/(b*n) + p/
2, p, 1 - I/(b*n) + p/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(-2*I + b*n*p)
```

Maple [F]

$$\int x\mathrm{csc}\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(x*csc(a+b*ln(c*x^n))^p,x)
[Out] int(x*csc(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int x\csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(x*csc(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int x\csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(x*csc(a+b*ln(c*x**n))**p,x)
[Out] Integral(x*csc(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int x\csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int x\csc\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(x*csc(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int x\csc^p(a+b\log(cx^n))\,dx=\int x\csc(b\log(cx^n)+a)^p\,dx$$

```
[In] integrate(x*csc(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(x*csc(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int x\csc^p(a+b\log(cx^n))\,dx=\int x\left(\frac{1}{\sin(a+b\,\ln(c\,x^n))}\right)^p\,dx$$

```
[In] int(x*(1/sin(a + b*log(c*x^n)))^p,x)
[Out] int(x*(1/sin(a + b*log(c*x^n)))^p, x)
```

3.330 $\int \csc^p(a+b\log(cx^n))\,dx$

Optimal result 2790
Rubi [A] (verified) 2790
Mathematica [A] (verified) 2791
Maple [F] 2792
Fricas [F] 2792
Sympy [F] 2792
Maxima [F] 2792
Giac [F] 2793
Mupad [F(-1)] 2793

Optimal result

Integrand size = 13, antiderivative size = 107

$$\int \csc^p(a+b\log(cx^n))\,dx = \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^p \csc^p(a+b\log(cx^n))\,\text{Hypergeometric2F1}\left(p,-\frac{i-bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}+p\right),e^{2ia}(cx^n)^{2ib}\right)}{1+ibnp}$$

```
[Out] x*(1-exp(2*I*a)*(c*x^n)^(2*I*b))^p*csc(a+b*ln(c*x^n))^p*hypergeom([p, 1/2*(
-I+b*n*p)/b/n],[1-1/2*I/b/n+1/2*p],exp(2*I*a)*(c*x^n)^(2*I*b))/(1+I*b*n*p)
```

Rubi [A] (verified)

Time = 0.08 (sec) , antiderivative size = 107, normalized size of antiderivative = 1.00, number of steps used = 3, number of rules used = 3, $\frac{\text{number of rules}}{\text{integrand size}}$ = 0.231, Rules used = {4600, 4604, 371}

$$\int \csc^p(a+b\log(cx^n))\,dx = \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^p \text{Hypergeometric2F1}\left(p,-\frac{i-bnp}{2bn},\frac{1}{2}\left(p-\frac{i}{bn}+2\right),e^{2ia}(cx^n)^{2ib}\right)\csc^p(a+b\log(cx^n))}{1+ibnp}$$

```
[In] Int[Csc[a + b*Log[c*x^n]]^p,x]
```

```
[Out] (x*(1 - E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*Csc[a + b*Log[c*x^n]]^p*Hypergeome
tric2F1[p, -1/2*(I - b*n*p)/(b*n), (2 - I/(b*n) + p)/2, E^((2*I)*a)*(c*x^n)
^((2*I)*b)])/(1 + I*b*n*p)
```

Rule 371

```
Int[((c_.)*(x_))^(m_.)*((a_) + (b_.)*(x_)^(n_))^(p_), x_Symbol] :> Simp[a^p
*((c*x)^(m + 1)/(c*(m + 1)))*Hypergeometric2F1[-p, (m + 1)/n, (m + 1)/n + 1
, (-b)*(x^n/a)], x] /; FreeQ[{a, b, c, m, n, p}, x] &&  !IGtQ[p, 0] && (ILt
Q[p, 0] || GtQ[a, 0])
```

Rule 4600

```
Int[Csc[((a_.) + Log[(c_.)*(x_)^(n_.)]*(b_.))*(d_.)]^(p_.), x_Symbol] :> Di
st[x/(n*(c*x^n)^(1/n)), Subst[Int[x^(1/n - 1)*Csc[d*(a + b*Log[x])]^p, x],
x, c*x^n], x] /; FreeQ[{a, b, c, d, n, p}, x] && (NeQ[c, 1] || NeQ[n, 1])
```

Rule 4604

```
Int[Csc[((a_.) + Log[x_]*(b_.))*(d_.)]^(p_.)*((e_.)*(x_))^(m_.), x_Symbol]
:> Dist[Csc[d*(a + b*Log[x])]^p*((1 - E^(2*I*a*d)*x^(2*I*b*d))^p/x^(I*b*d*p
)), Int[(e*x)^m*(x^(I*b*d*p)/(1 - E^(2*I*a*d)*x^(2*I*b*d))^p), x], x] /; Fr
eeQ[{a, b, d, e, m, p}, x] &&  !IntegerQ[p]
```

Rubi steps

$$\text{integral} = \frac{\left(x(cx^n)^{-1/n}\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}}\csc^p(a+b\log(x))\,dx,x,cx^n\right)}{n}$$

$$= \frac{\left(x(cx^n)^{-\frac{1}{n}-ibp}\left(1-e^{2ia}(cx^n)^{2ib}\right)^p\csc^p\left(a+b\log\left(cx^n\right)\right)\right)\text{Subst}\left(\int x^{-1+\frac{1}{n}+ibp}\left(1-e^{2ia}x^{2ib}\right)^{-p}\,dx,x\right.}{n}$$

$$= \frac{x\left(1-e^{2ia}(cx^n)^{2ib}\right)^p\csc^p\left(a+b\log\left(cx^n\right)\right)\text{Hypergeometric2F1}\left(p,-\frac{i-bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}+p\right),e^{2ia}(cx^n\right.}{1+ibnp}$$

Mathematica [A] (verified)

Time = 0.76 (sec) , antiderivative size = 142, normalized size of antiderivative = 1.33

$$\int\csc^p\left(a+b\log\left(cx^n\right)\right)\,dx = -\frac{ix\left(2-2e^{2ia}(cx^n)^{2ib}\right)^p\left(\frac{ie^{ia}(cx^n)^{ib}}{-1+e^{2ia}(cx^n)^{2ib}}\right)^p\text{Hypergeometric2F1}\left(p,\frac{-i+bnp}{2bn},\frac{1}{2}\left(2-\frac{i}{bn}+p\right),e^{2ia}(cx^n)^{2ib}\right)}{-i+bnp}$$

```
[In] Integrate[Csc[a + b*Log[c*x^n]]^p,x]
```

```
[Out] ((-I)*x*(2 - 2*E^((2*I)*a)*(c*x^n)^((2*I)*b))^p*((I*E^(I*a)*(c*x^n)^(I*b))/
(-1 + E^((2*I)*a)*(c*x^n)^((2*I)*b)))^p*Hypergeometric2F1[p, (-I + b*n*p)/(
2*b*n), (2 - I/(b*n) + p)/2, E^((2*I)*a)*(c*x^n)^((2*I)*b)])/(-I + b*n*p)
```

Maple [F]

$$\int \csc\left(a+b\ln\left(c\,x^{n}\right)\right)^{p}dx$$

```
[In] int(csc(a+b*ln(c*x^n))^p,x)
[Out] int(csc(a+b*ln(c*x^n))^p,x)
```

Fricas [F]

$$\int \csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^p,x, algorithm="fricas")
[Out] integral(csc(b*log(c*x^n) + a)^p, x)
```

Sympy [F]

$$\int \csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc^{p}\left(a+b\log\left(cx^{n}\right)\right)dx$$

```
[In] integrate(csc(a+b*ln(c*x**n))**p,x)
[Out] Integral(csc(a + b*log(c*x**n))**p, x)
```

Maxima [F]

$$\int \csc^{p}\left(a+b\log\left(cx^{n}\right)\right)\,dx=\int \csc\left(b\log\left(cx^{n}\right)+a\right)^{p}\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^p,x, algorithm="maxima")
[Out] integrate(csc(b*log(c*x^n) + a)^p, x)
```

Giac [F]

$$\int \csc^p(a + b\log(cx^n))\,dx = \int \csc(b\log(cx^n) + a)^p\,dx$$

```
[In] integrate(csc(a+b*log(c*x^n))^p,x, algorithm="giac")
[Out] integrate(csc(b*log(c*x^n) + a)^p, x)
```

Mupad [F(-1)]

Timed out.

$$\int \csc^p(a + b\log(cx^n))\,dx = \int \left(\frac{1}{\sin(a + b\ln(c\,x^n))}\right)^p\,dx$$

```
[In] int((1/sin(a + b*log(c*x^n)))^p,x)
[Out] int((1/sin(a + b*log(c*x^n)))^p, x)
```

CHAPTER 4

APPENDIX

4.1 Listing of Grading functions 2795

4.1 Listing of Grading functions

The following are the current version of the grading functions used for grading the quality of the antiderivative with reference to the optimal antiderivative included in the test suite.

There is a version for Maple and for Mathematica/Rubi. There is a version for grading Sympy and version for use with Sagemath.

The following are links to the current source code.

The following are the listings of source code of the grading functions.

Mathematica and Rubi grading function

```
(* Original version thanks to Albert Rich emailed on 03/21/2017 *)
(* ::Package:: *)

(* Nasser: April 7,2022. add second output which gives reason for the grade *)
(*                       Small rewrite of logic in main function to make it*)
(*                       match Maple's logic. No change in functionality otherwise*)

(* ::Subsection:: *)
(*GradeAntiderivative[result,optimal]*)


(* ::Text:: *)
(*If result and optimal are mathematical expressions, *)
```

```
(*          GradeAntiderivative[result,optimal] returns*)
(*  "F" if the result fails to integrate an expression that*)
(*      is integrable*)
(*  "C" if result involves higher level functions than necessary*)
(*  "B" if result is more than twice the size of the optimal*)
(*      antiderivative*)
(*  "A" if result can be considered optimal*)


GradeAntiderivative[result_,optimal_] := Module[{expnResult,expnOptimal,leafCountResult,leafCou
    expnResult  = ExpnType[result];
    expnOptimal = ExpnType[optimal];
    leafCountResult = LeafCount[result];
    leafCountOptimal = LeafCount[optimal];

    (*Print["expnResult=",expnResult," expnOptimal=",expnOptimal];*)
    If[expnResult<=expnOptimal,
        If[Not[FreeQ[result,Complex]], (*result contains complex*)
            If[Not[FreeQ[optimal,Complex]], (*optimal contains complex*)
                If[leafCountResult<=2*leafCountOptimal,
                    finalresult={"A",""}
                    ,(*ELSE*)
                    finalresult={"B","Both result and optimal contain complex but leaf count is
                  ]
            ,(*ELSE*)
                finalresult={"C","Result contains complex when optimal does not."}
            ]
        ,(*ELSE*)(*result does not contains complex*)
            If[leafCountResult<=2*leafCountOptimal,
               finalresult={"A",""}
            ,(*ELSE*)
               finalresult={"B","Leaf count is larger than twice the leaf count of optimal. $"<
              ]
        ]
    ,(*ELSE*) (*expnResult>expnOptimal*)
        If[FreeQ[result,Integrate] && FreeQ[result,Int],
            finalresult={"C","Result contains higher order function than in optimal. Order "<>T
            ,
            finalresult={"F","Contains unresolved integral."}
        ]
    ];

    finalresult
]

(* ::Text:: *)
(*The following summarizes the type number assigned an *)
```

```
(*expression based on the functions it involves*)
(*1 = rational function*)
(*2 = algebraic function*)
(*3 = elementary function*)
(*4 = special function*)
(*5 = hyperpergeometric function*)
(*6 = appell function*)
(*7 = rootsum function*)
(*8 = integrate function*)
(*9 = unknown function*)


ExpnType[expn_] :=
  If[AtomQ[expn],
    1,
  If[ListQ[expn],
    Max[Map[ExpnType,expn]],
  If[Head[expn]===Power,
    If[IntegerQ[expn[[2]]],
      ExpnType[expn[[1]]],
    If[Head[expn[[2]]]===Rational,
      If[IntegerQ[expn[[1]]] || Head[expn[[1]]]===Rational,
        1,
      Max[ExpnType[expn[[1]]],2]],
    Max[ExpnType[expn[[1]]],ExpnType[expn[[2]]],3]]],
  If[Head[expn]===Plus || Head[expn]===Times,
    Max[ExpnType[First[expn]],ExpnType[Rest[expn]]],
  If[ElementaryFunctionQ[Head[expn]],
    Max[3,ExpnType[expn[[1]]]],
  If[SpecialFunctionQ[Head[expn]],
    Apply[Max,Append[Map[ExpnType,Apply[List,expn]],4]],
  If[HypergeometricFunctionQ[Head[expn]],
    Apply[Max,Append[Map[ExpnType,Apply[List,expn]],5]],
  If[AppellFunctionQ[Head[expn]],
    Apply[Max,Append[Map[ExpnType,Apply[List,expn]],6]],
  If[Head[expn]===RootSum,
    Apply[Max,Append[Map[ExpnType,Apply[List,expn]],7]],
  If[Head[expn]===Integrate || Head[expn]===Int,
    Apply[Max,Append[Map[ExpnType,Apply[List,expn]],8]],
  9]]]]]]]]]]]


ElementaryFunctionQ[func_] :=
  MemberQ[{
  Exp,Log,
  Sin,Cos,Tan,Cot,Sec,Csc,
  ArcSin,ArcCos,ArcTan,ArcCot,ArcSec,ArcCsc,
```

```
  Sinh,Cosh,Tanh,Coth,Sech,Csch,
  ArcSinh,ArcCosh,ArcTanh,ArcCoth,ArcSech,ArcCsch
},func]


SpecialFunctionQ[func_] :=
  MemberQ[{
  Erf, Erfc, Erfi,
  FresnelS, FresnelC,
  ExpIntegralE, ExpIntegralEi, LogIntegral,
  SinIntegral, CosIntegral, SinhIntegral, CoshIntegral,
  Gamma, LogGamma, PolyGamma,
  Zeta, PolyLog, ProductLog,
  EllipticF, EllipticE, EllipticPi
},func]


HypergeometricFunctionQ[func_] :=
  MemberQ[{Hypergeometric1F1,Hypergeometric2F1,HypergeometricPFQ},func]


AppellFunctionQ[func_] :=
  MemberQ[{AppellF1},func]
```

Maple grading function

```
# File: GradeAntiderivative.mpl
# Original version thanks to Albert Rich emailed on 03/21/2017

#Nasser 03/22/2017  Use Maple leaf count instead since buildin
#Nasser 03/23/2017  missing 'ln' for ElementaryFunctionQ added
#Nasser 03/24/2017  corrected the check for complex result
#Nasser 10/27/2017  check for leafsize and do not call ExpnType()
#                   if leaf size is "too large". Set at 500,000
#Nasser 12/22/2019  Added debug flag, added 'dilog' to special functions
#                   see problem 156, file Apostol_Problems
#Nasser 4/07/2022   add second output which gives reason for the grade

GradeAntiderivative := proc(result,optimal)
local leaf_count_result,
        leaf_count_optimal,
        ExpnType_result,
        ExpnType_optimal,
        debug:=false;

        leaf_count_result:=leafcount(result);
```

```
        #do NOT call ExpnType() if leaf size is too large. Recursion problem
        if leaf_count_result > 500000 then
            return "B","result has leaf size over 500,000. Avoiding possible recursion issues
        fi;

        leaf_count_optimal := leafcount(optimal);
        ExpnType_result  := ExpnType(result);
        ExpnType_optimal := ExpnType(optimal);

        if debug then
            print("ExpnType_result",ExpnType_result," ExpnType_optimal=",ExpnType_optimal);
        fi;

# If result and optimal are mathematical expressions,
#  GradeAntiderivative[result,optimal] returns
#   "F" if the result fails to integrate an expression that
#       is integrable
#   "C" if result involves higher level functions than necessary
#   "B" if result is more than twice the size of the optimal
#       antiderivative
#   "A" if result can be considered optimal

    #This check below actually is not needed, since I only
    #call this grading only for passed integrals. i.e. I check
    #for "F" before calling this. But no harm of keeping it here.
    #just in case.


    if not type(result,freeof('int')) then
        return "F","Result contains unresolved integral";
    fi;


    if ExpnType_result<=ExpnType_optimal then
        if debug then
             print("ExpnType_result<=ExpnType_optimal");
        fi;
        if is_contains_complex(result) then
            if is_contains_complex(optimal) then
                if debug then
                        print("both result and optimal complex");
                fi;
                if leaf_count_result<=2*leaf_count_optimal then
                    return "A"," ";
                else
                   return "B",cat("Both result and optimal contain complex but leaf count of
                                convert(leaf_count_result,string)," vs. $2 (",
```

```
                                   convert(leaf_count_optimal,string)," ) = ",convert(2*leaf_co
                end if
            else #result contains complex but optimal is not
                if debug then
                        print("result contains complex but optimal is not");
                fi;
                return "C","Result contains complex when optimal does not.";
            fi;
        else # result do not contain complex
             # this assumes optimal do not as well. No check is needed here.
            if debug then
                   print("result do not contain complex, this assumes optimal do not as well")
            fi;
            if leaf_count_result<=2*leaf_count_optimal then
                if debug then
                    print("leaf_count_result<=2*leaf_count_optimal");
                fi;
                return "A"," ";
            else
                if debug then
                    print("leaf_count_result>2*leaf_count_optimal");
                fi;
                return "B",cat("Leaf count of result is larger than twice the leaf count of opt
                                   convert(leaf_count_result,string),"$ vs. $2(",
                                   convert(leaf_count_optimal,string),")=",convert(2*leaf_count
            fi;
        fi;
    else #ExpnType(result) > ExpnType(optimal)
        if debug then
            print("ExpnType(result) > ExpnType(optimal)");
        fi;
        return "C",cat("Result contains higher order function than in optimal. Order ",
                       convert(ExpnType_result,string)," vs. order ",
                       convert(ExpnType_optimal,string),".");
    fi;

end proc:

#
# is_contains_complex(result)
# takes expressions and returns true if it contains "I" else false
#
#Nasser 032417
is_contains_complex:= proc(expression)
  return (has(expression,I));
end proc:
```

```
# The following summarizes the type number assigned an expression
# based on the functions it involves
# 1 = rational function
# 2 = algebraic function
# 3 = elementary function
# 4 = special function
# 5 = hyperpergeometric function
# 6 = appell function
# 7 = rootsum function
# 8 = integrate function
# 9 = unknown function

ExpnType := proc(expn)
  if type(expn,'atomic') then
    1
  elif type(expn,'list') then
    apply(max,map(ExpnType,expn))
  elif type(expn,'sqrt') then
    if type(op(1,expn),'rational') then
       1
    else
       max(2,ExpnType(op(1,expn)))
    end if
  elif type(expn,'`^`') then
    if type(op(2,expn),'integer') then
      ExpnType(op(1,expn))
    elif type(op(2,expn),'rational') then
      if type(op(1,expn),'rational') then
         1
      else
         max(2,ExpnType(op(1,expn)))
      end if
    else
         max(3,ExpnType(op(1,expn)),ExpnType(op(2,expn)))
    end if
  elif type(expn,'`+`') or type(expn,'`*`') then
    max(ExpnType(op(1,expn)),max(ExpnType(rest(expn))))
  elif ElementaryFunctionQ(op(0,expn)) then
    max(3,ExpnType(op(1,expn)))
  elif SpecialFunctionQ(op(0,expn)) then
    max(4,apply(max,map(ExpnType,[op(expn)])))
  elif HypergeometricFunctionQ(op(0,expn)) then
    max(5,apply(max,map(ExpnType,[op(expn)])))
  elif AppellFunctionQ(op(0,expn)) then
    max(6,apply(max,map(ExpnType,[op(expn)])))
  elif op(0,expn)='int' then
    max(8,apply(max,map(ExpnType,[op(expn)]))) else
```

```
  9
  end if
end proc:


ElementaryFunctionQ := proc(func)
  member(func,[
        exp,log,ln,
        sin,cos,tan,cot,sec,csc,
        arcsin,arccos,arctan,arccot,arcsec,arccsc,
        sinh,cosh,tanh,coth,sech,csch,
        arcsinh,arccosh,arctanh,arccoth,arcsech,arccsch])
end proc:

SpecialFunctionQ := proc(func)
  member(func,[
        erf,erfc,erfi,
        FresnelS,FresnelC,
        Ei,Ei,Li,Si,Ci,Shi,Chi,
        GAMMA,lnGAMMA,Psi,Zeta,polylog,dilog,LambertW,
        EllipticF,EllipticE,EllipticPi])
end proc:

HypergeometricFunctionQ := proc(func)
  member(func,[Hypergeometric1F1,hypergeom,HypergeometricPFQ])
end proc:

AppellFunctionQ := proc(func)
  member(func,[AppellF1])
end proc:

# u is a sum or product.  rest(u) returns all but the
# first term or factor of u.
rest := proc(u) local v;
  if nops(u)=2 then
     op(2,u)
  else
     apply(op(0,u),op(2..nops(u),u))
  end if
end proc:

#leafcount(u) returns the number of nodes in u.
#Nasser 3/23/17  Replaced by build-in leafCount from package in Maple
leafcount := proc(u)
   MmaTranslator[Mma][LeafCount](u);
end proc:
```

Sympy grading function

```
#Dec 24, 2019. Nasser M. Abbasi:
#             Port of original Maple grading function by
#             Albert Rich to use with Sympy/Python
#Dec 27, 2019  Nasser. Added `RootSum`. See problem 177, Timofeev file
#             added 'exp_polar'
from sympy import *

def leaf_count(expr):
   #sympy do not have leaf count function. This is approximation
   return round(1.7*count_ops(expr))

def is_sqrt(expr):
   if isinstance(expr,Pow):
      if expr.args[1] == Rational(1,2):
         return True
      else:
         return False
   else:
      return False

def is_elementary_function(func):
   return func in [exp,log,ln,sin,cos,tan,cot,sec,csc,
         asin,acos,atan,acot,asec,acsc,sinh,cosh,tanh,coth,sech,csch,
         asinh,acosh,atanh,acoth,asech,acsch
      ]

def is_special_function(func):
   return func in [ erf,erfc,erfi,
          fresnels,fresnelc,Ei,Ei,Li,Si,Ci,Shi,Chi,
          gamma,loggamma,digamma,zeta,polylog,LambertW,
          elliptic_f,elliptic_e,elliptic_pi,exp_polar
       ]

def is_hypergeometric_function(func):
   return func in [hyper]

def is_appell_function(func):
   return func in [appellf1]

def is_atom(expn):
   try:
      if expn.isAtom or isinstance(expn,int) or isinstance(expn,float):
        return True
      else:
        return False
```

```
    except AttributeError as error:
        return False

def expnType(expn):
    debug=False
    if debug:
        print("expn=",expn,"type(expn)=",type(expn))

    if is_atom(expn):
       return 1
    elif isinstance(expn,list):
        return max(map(expnType, expn))    #apply(max,map(ExpnType,expn))
    elif  is_sqrt(expn):
        if isinstance(expn.args[0],Rational): #type(op(1,expn),'rational')
            return 1
        else:
            return max(2,expnType(expn.args[0]))  #max(2,ExpnType(op(1,expn)))
    elif isinstance(expn,Pow):   #type(expn,'`^`')
        if isinstance(expn.args[1],Integer):  #type(op(2,expn),'integer')
            return expnType(expn.args[0])   #ExpnType(op(1,expn))
        elif isinstance(expn.args[1],Rational):  #type(op(2,expn),'rational')
            if isinstance(expn.args[0],Rational): #type(op(1,expn),'rational')
                return 1
            else:
                return max(2,expnType(expn.args[0]))  #max(2,ExpnType(op(1,expn)))
        else:
            return max(3,expnType(expn.args[0]),expnType(expn.args[1])) #max(3,ExpnType(op(1,expn)),ExpnTy
    elif isinstance(expn,Add) or isinstance(expn,Mul): #type(expn,'`+`') or type(expn,'`*`')
        m1 = expnType(expn.args[0])
        m2 = expnType(list(expn.args[1:]))
        return max(m1,m2)  #max(ExpnType(op(1,expn)),max(ExpnType(rest(expn))))
    elif is_elementary_function(expn.func): #ElementaryFunctionQ(op(0,expn))
        return max(3,expnType(expn.args[0]))  #max(3,ExpnType(op(1,expn)))
    elif is_special_function(expn.func): #SpecialFunctionQ(op(0,expn))
        m1 = max(map(expnType, list(expn.args)))
        return max(4,m1)   #max(4,apply(max,map(ExpnType,[op(expn)])))
    elif is_hypergeometric_function(expn.func): #HypergeometricFunctionQ(op(0,expn))
        m1 = max(map(expnType, list(expn.args)))
        return max(5,m1)   #max(5,apply(max,map(ExpnType,[op(expn)])))
    elif is_appell_function(expn.func):
        m1 = max(map(expnType, list(expn.args)))
        return max(6,m1)   #max(5,apply(max,map(ExpnType,[op(expn)])))
    elif isinstance(expn,RootSum):
        m1 = max(map(expnType, list(expn.args))) #Apply[Max,Append[Map[ExpnType,Apply[List,expn]],7]],
        return max(7,m1)
    elif str(expn).find("Integral") != -1:
```

```
        m1 = max(map(expnType, list(expn.args)))
        return max(8,m1)    #max(5,apply(max,map(ExpnType,[op(expn)])))
    else:
        return 9

#main function
def grade_antiderivative(result,optimal):

    #print ("Enter grade_antiderivative for sagemath")
    #print("Enter grade_antiderivative, result=",result," optimal=",optimal)

    leaf_count_result  = leaf_count(result)
    leaf_count_optimal = leaf_count(optimal)

    #print("leaf_count_result=",leaf_count_result)
    #print("leaf_count_optimal=",leaf_count_optimal)

    expnType_result  = expnType(result)
    expnType_optimal = expnType(optimal)

    if str(result).find("Integral") != -1:
        grade = "F"
        grade_annotation =""
    else:
        if expnType_result <= expnType_optimal:
            if result.has(I):
                if optimal.has(I): #both result and optimal complex
                    if leaf_count_result <= 2*leaf_count_optimal:
                        grade = "A"
                        grade_annotation =""
                    else:
                        grade = "B"
                        grade_annotation ="Both result and optimal contain complex but leaf count of result is larg
                else: #result contains complex but optimal is not
                    grade = "C"
                    grade_annotation ="Result contains complex when optimal does not."
            else: # result do not contain complex, this assumes optimal do not as well
                if leaf_count_result <= 2*leaf_count_optimal:
                    grade = "A"
                    grade_annotation =""
                else:
                    grade = "B"
                    grade_annotation ="Leaf count of result is larger than twice the leaf count of optimal. "+str(le
        else:
            grade = "C"
            grade_annotation ="Result contains higher order function than in optimal. Order "+str(ExpnType_
```

```
    #print("Before returning. grade=",grade, " grade_annotation=",grade_annotation)

    return grade, grade_annotation
```

SageMath grading function

```
#Dec 24, 2019. Nasser: Ported original Maple grading function by
#               Albert Rich to use with Sagemath. This is used to
#               grade Fricas, Giac and Maxima results.
#Dec 24, 2019. Nasser: Added 'exp_integral_e' and 'sng', 'sin_integral'
#               'arctan2','floor','abs','log_integral'
#June 4, 2022  Made default grade_annotation "none" instead of "" due
#               issue later when reading the file.
#July 14, 2022. Added ellipticF. This is until they fix sagemath, then remove it.

from sage.all import *
from sage.symbolic.operators import add_vararg, mul_vararg

debug=False;

def tree_size(expr):
    r"""
    Return the tree size of this expression.
    """
    #print("Enter tree_size, expr is ",expr)

    if expr not in SR:
        # deal with lists, tuples, vectors
        return 1 + sum(tree_size(a) for a in expr)
    expr = SR(expr)
    x, aa = expr.operator(), expr.operands()
    if x is None:
        return 1
    else:
        return 1 + sum(tree_size(a) for a in aa)

def is_sqrt(expr):
    if expr.operator() == operator.pow:   #isinstance(expr,Pow):
        if expr.operands()[1]==1/2: #expr.args[1] == Rational(1,2):
            if debug: print ("expr is sqrt")
            return True
        else:
            return False
    else:
        return False
```

```
def is_elementary_function(func):
    #debug=False
    m = func.name() in ['exp','log','ln',
            'sin','cos','tan','cot','sec','csc',
            'arcsin','arccos','arctan','arccot','arcsec','arccsc',
            'sinh','cosh','tanh','coth','sech','csch',
            'arcsinh','arccosh','arctanh','arccoth','arcsech','arccsch','sgn',
        'arctan2','floor','abs'
        ]
    if debug:
        if m:
            print ("func ", func , " is elementary_function")
        else:
            print ("func ", func , " is NOT elementary_function")


    return m

def is_special_function(func):
    #debug=False
    if debug:
        print ("type(func)=", type(func))

    m= func.name() in ['erf','erfc','erfi','fresnel_sin','fresnel_cos','Ei',
           'Ei','Li','Si','sin_integral','Ci','cos_integral','Shi','sinh_integral'
           'Chi','cosh_integral','gamma','log_gamma','psi,zeta',
           'polylog','lambert_w','elliptic_f','elliptic_e','ellipticF',
           'elliptic_pi','exp_integral_e','log_integral']

    if debug:
        print ("m=",m)
        if m:
            print ("func ", func ," is special_function")
        else:
            print ("func ", func ," is NOT special_function")


    return m


def is_hypergeometric_function(func):
    return func.name() in ['hypergeometric','hypergeometric_M','hypergeometric_U']

def is_appell_function(func):
    return func.name() in ['hypergeometric']   #[appellf1] can't find this in sagemath
```

```
def is_atom(expn):

    #debug=False
    if debug:
        print ("Enter is_atom, expn=",expn)

    if not hasattr(expn, 'parent'):
        return False


    #thanks to answer at https://ask.sagemath.org/question/49179/what-is-sagemath-equivalent-to-atomic-t
    try:
        if expn.parent() is SR:
            return expn.operator() is None
        if expn.parent() in (ZZ, QQ, AA, QQbar):
            return expn in expn.parent() # Should always return True
        if hasattr(expn.parent(),"base_ring") and hasattr(expn.parent(),"gens"):
            return expn in expn.parent().base_ring() or expn in expn.parent().gens()

        return False

    except AttributeError as error:
        print("Exception,AttributeError in  is_atom")
        print ("cought exception" , type(error).__name__ )
        return False


def expnType(expn):

    if debug:
        print (">>>>>Enter expnType, expn=", expn)
        print (">>>>>is_atom(expn)=", is_atom(expn))

    if is_atom(expn):
        return 1
    elif type(expn)==list:   #isinstance(expn,list):
        return max(map(expnType, expn))    #apply(max,map(ExpnType,expn))
    elif  is_sqrt(expn):
        if  type(expn.operands()[0])==Rational:  #type(isinstance(expn.args[0],Rational):
            return 1
        else:
            return max(2,expnType(expn.operands()[0]))   #max(2,expnType(expn.args[0]))
    elif expn.operator() == operator.pow:    #isinstance(expn,Pow)
        if type(expn.operands()[1])==Integer:   #isinstance(expn.args[1],Integer)
            return expnType(expn.operands()[0])    #expnType(expn.args[0])
        elif type(expn.operands()[1])==Rational:   #isinstance(expn.args[1],Rational)
            if type(expn.operands()[0])==Rational:  #isinstance(expn.args[0],Rational)
```

```
            return 1
         else:
            return max(2,expnType(expn.operands()[0]))   #max(2,expnType(expn.args[0]))
      else:
         return max(3,expnType(expn.operands()[0]),expnType(expn.operands()[1]))  #max(3,expnType(expn.
   elif expn.operator() == add_vararg or expn.operator() == mul_vararg: #isinstance(expn,Add) or isinst
      m1 = expnType(expn.operands()[0]) #expnType(expn.args[0])
      m2 = expnType(expn.operands()[1:]) #expnType(list(expn.args[1:]))
      return max(m1,m2)   #max(ExpnType(op(1,expn)),max(ExpnType(rest(expn))))
   elif is_elementary_function(expn.operator()):  #is_elementary_function(expn.func)
      return max(3,expnType(expn.operands()[0]))
   elif is_special_function(expn.operator()): #is_special_function(expn.func)
      m1 = max(map(expnType, expn.operands()))       #max(map(expnType, list(expn.args)))
      return max(4,m1)    #max(4,m1)
   elif is_hypergeometric_function(expn.operator()): #is_hypergeometric_function(expn.func)
      m1 = max(map(expnType, expn.operands()))       #max(map(expnType, list(expn.args)))
      return max(5,m1)    #max(5,m1)
   elif is_appell_function(expn.operator()):
      m1 = max(map(expnType, expn.operands()))       #max(map(expnType, list(expn.args)))
      return max(6,m1)    #max(6,m1)
   elif str(expn).find("Integral") != -1: #this will never happen, since it
            #is checked before calling the grading function that is passed.
            #but kept it here.
      m1 = max(map(expnType, expn.operands()))       #max(map(expnType, list(expn.args)))
      return max(8,m1)    #max(5,apply(max,map(ExpnType,[op(expn)])))
   else:
      return 9

#main function
def grade_antiderivative(result,optimal):


   if debug:
      print ("Enter grade_antiderivative for sagemath")
      print("Enter grade_antiderivative, result=",result)
      print("Enter grade_antiderivative, optimal=",optimal)
      print("type(anti)=",type(result))
      print("type(optimal)=",type(optimal))

   leaf_count_result  = tree_size(result) #leaf_count(result)
   leaf_count_optimal = tree_size(optimal) #leaf_count(optimal)

   #if debug: print ("leaf_count_result=", leaf_count_result, "leaf_count_optimal=",leaf_count_optimal)


   expnType_result  = expnType(result)
   expnType_optimal = expnType(optimal)
```

```
if debug: print ("expnType_result=", expnType_result, "expnType_optimal=",expnType_optimal)

if expnType_result <= expnType_optimal:
    if result.has(I):
        if optimal.has(I): #both result and optimal complex
            if leaf_count_result <= 2*leaf_count_optimal:
                grade = "A"
                grade_annotation ="none"
            else:
                grade = "B"
                grade_annotation ="Both result and optimal contain complex but leaf count of result is larger th
        else: #result contains complex but optimal is not
            grade = "C"
            grade_annotation ="Result contains complex when optimal does not."
    else: # result do not contain complex, this assumes optimal do not as well
        if leaf_count_result <= 2*leaf_count_optimal:
            grade = "A"
            grade_annotation ="none"
        else:
            grade = "B"
            grade_annotation ="Leaf count of result is larger than twice the leaf count of optimal. "+str(leaf_c
else:
    grade = "C"
    grade_annotation ="Result contains higher order function than in optimal. Order "+str(expnType_resul


print("Before returning. grade=",grade, " grade_annotation=",grade_annotation)

return grade, grade_annotation
```