

$$\begin{array}{ccccc}
 0 & & u_t = ku_{xx} & & \pi \\
 \bullet & \xrightarrow{\hspace{1.5cm}} & & \xleftarrow{\hspace{1.5cm}} & \bullet \\
 u = 0 & & f(x) & & u_x = 0
 \end{array}$$