



node 1

$$\dot{q}_2 = \dot{q}''' V = 0$$

$$\dot{q}_2 = kA \frac{dT}{dx}$$

$$\dot{q}_2 = \frac{T_2 - T_1}{R}$$

node i:

$$\dot{q}_{i+1} = k 2\pi \left(r_i + \frac{\Delta r}{2} \right) \frac{(T_{i+1} - T_i) \cdot L}{\Delta r}$$