Fam (c)
6Feb2019

1. Know the value of the flux
   \[ \Phi = 0 \text{ insulated wall} \]

2. Know the value of the flux
   \[ \frac{\partial r}{\partial x} = 0 \]

3. Newton's Law of Cooling
   \[ x = L \]
   \[ \frac{dx}{dt} = 0 \] (no change in time)

5. Common BC for that xfin
   \[ T = 1 \]

6. e.g.
   \[ r = R \]
   \[ T = T_{\text{wall}} \]
   \[ T_{\text{bulk}} = T_{\text{wall}} \]
1. Symmetry

\[ x = 0 \]

\[ \frac{dT}{dx} = 0 \]

Max or min at plane of symmetry

5. Physically realistic 3 < 64 solutions

\[ T = (\alpha) r + \beta \frac{s}{r} \]

\[ \alpha, r = 0 \Rightarrow c, r = 0 \]

\[ T = \text{finite} \]

*note: this is only true if the (e.g. \( r = 0 \)) point is in the domain