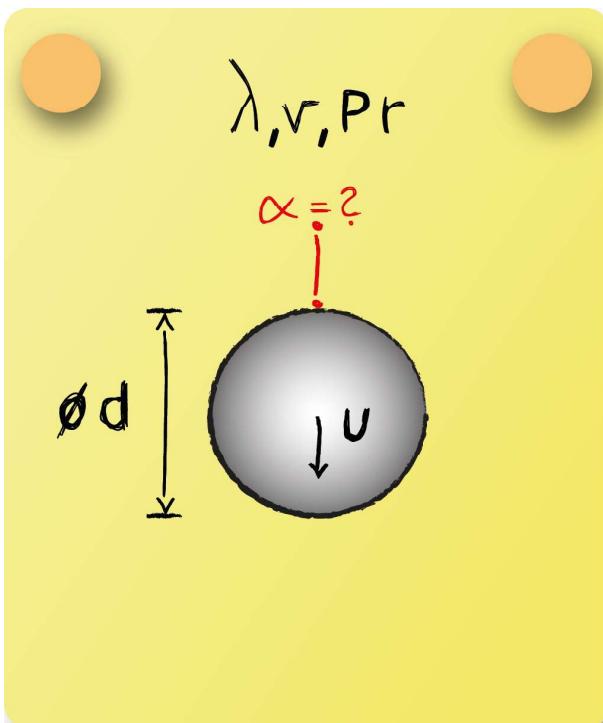


Heat Transfer Correlation 11.1



Reynolds number:

$$Re_d = \frac{u \cdot d}{\nu} = 6.51 \cdot 10^4$$

Nusselt number:



$$\overline{Nu}_d = 2 + \left(0.4 \cdot Re_d^{1/2} + 0.06 \cdot Re_d^{2/3} \right) \cdot Pr^{0.4} \cdot \left(\frac{\eta_\infty}{\eta_w} \right)^{1/4} = 176.20$$

Heat transfer coefficient:

$$\bar{\alpha} = \frac{\overline{Nu}_d \cdot \lambda_f}{d} = 22.55 \text{ W/m}^2\text{K}$$