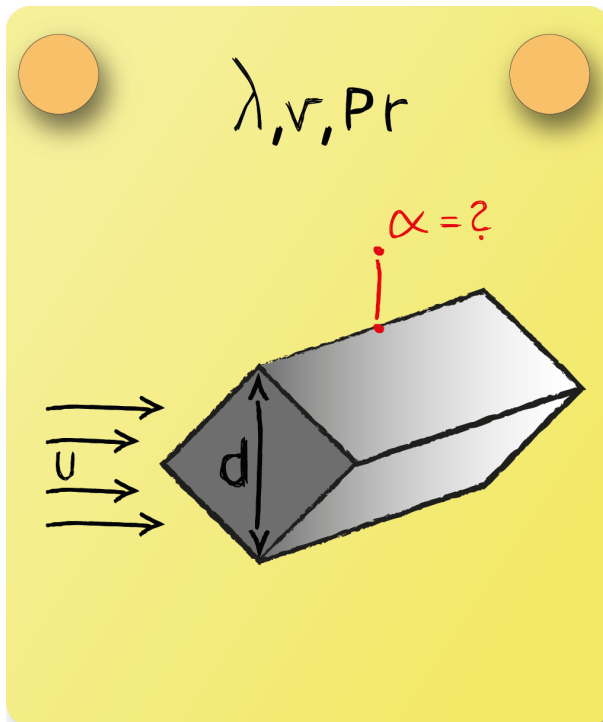




Heat Transfer Correlation: Task 6



The image describes a square bar which is flowed transversely on one edge by a fluid with velocity u .

1



HTC.9a: $\overline{Nu_d} = \frac{\overline{\alpha}d}{\lambda} = C \cdot Re_d^m Pr^{0.4}$ with $C = 0.246$.
 $m = 0.588$ and $Re_d = \frac{ud}{\nu}$

2



Results: $Re_d = 6666.67$ $\overline{Nu_d} = 38.01$ $\overline{\alpha} = 1.98$