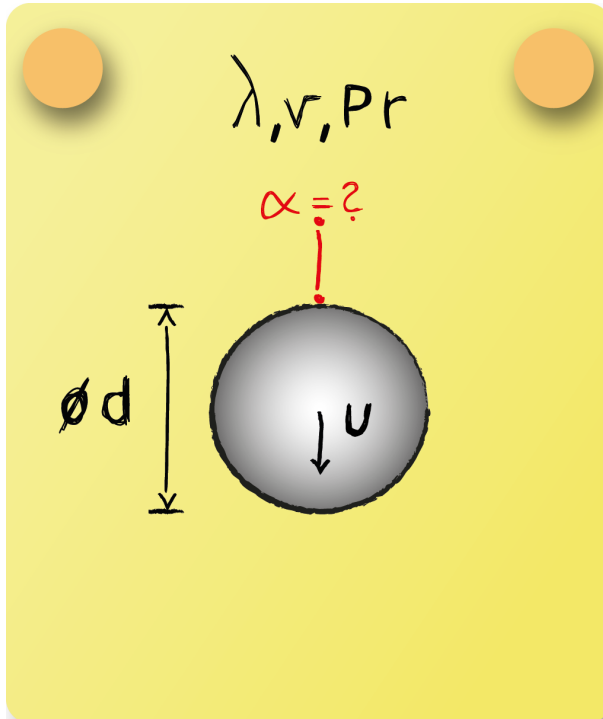




# Heat Transfer Correlation: Task 11



The image describes a sphere with diameter  $d$  which falls with velocity  $u$  in a non-moving fluid.

1



HTC.11:  $\overline{Nu}_d = 2 + (0.4Re_d^{1/2} + 0.06Re_d^{2/3})Pr^{0.4}(\frac{\eta_\infty}{\eta_w})^{1/4}$   
with  $Re_d = \frac{ud}{\nu}$

2



$Re_d = 11.1:65146.6 \mid 11.2:12013.5 \mid 11.3:27886.2 \mid 11.4:15.2$   
 $\mid 11.5:54.9$

3



$\overline{Nu}_d = 11.1:176.20 \mid 11.2:77.28 \mid 11.3:347.25 \mid 11.4:5.463$   
 $\mid 11.5:16.04$

4



$\bar{\alpha} = 11.1:22.55 \mid 11.2:193.83 \mid 11.3:1948.08 \mid 11.4:344.74$   
 $\mid 11.5:186.08$