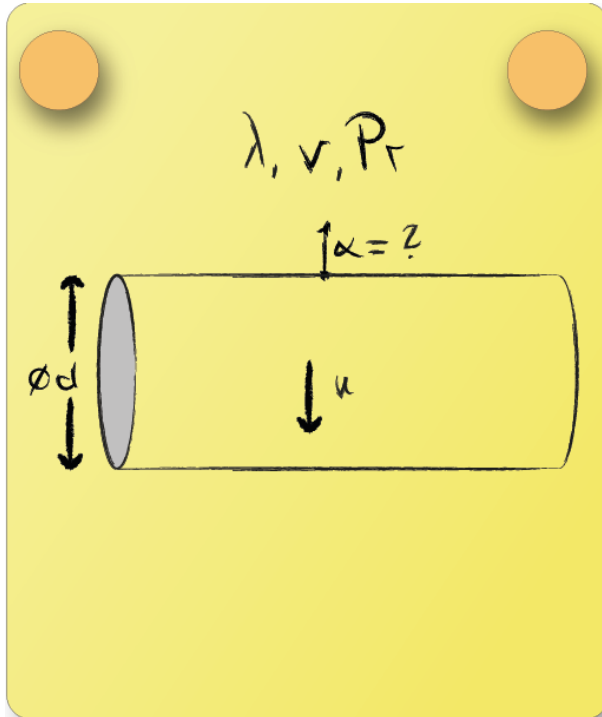# Heat Transfer Correlation: Task 5

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

1 HTC.7: $\overline{Nu_d} = \frac{\overline{\alpha}d}{\lambda} = C \cdot Re_d^m Pr^{0,4}$ with $Re_d = \frac{ud}{\nu}$

2 $Re_d=$ 5.1:66666,7|5.2:3333,3|5.3:29411,8|5.4:5,6|5.5:0,8

3 $\overline{Nu_L}=$ 5.1:177,27|5.2:28,95|5.3:242,74|5.4:6,389|5.5:0,781

4 $\overline{\alpha}=$ 5.1:23,04 |5.2:156,31 |5.3:1237,98 |5.4:70,28|5.5:15,77