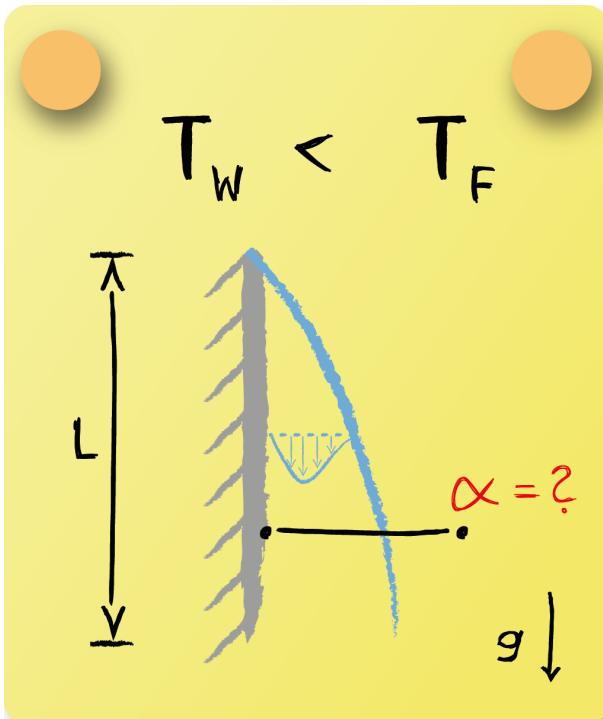


# Heat Transfer Correlation: Task 14



The image describes a vertical plate with length  $L$  and a constant temperature  $T_W$  standing in non-moving water dampf (as ideal gas) of a temperature  $T_F$ .

1 HTC.17:  $\overline{Nu_L} = C(Gr_L Pr)^{1/4}$  with  $C = 0.535$  and  $\beta = \frac{1}{T_\infty} = \frac{1}{T_F}$  (ideal gas)

2 Results:  $Gr_L = 1.52 \cdot 10^8$   $\overline{Nu_L} = 59.4$   $\overline{\alpha} = 2.98$

3 **Important:** Use temperatures in Kelvin!