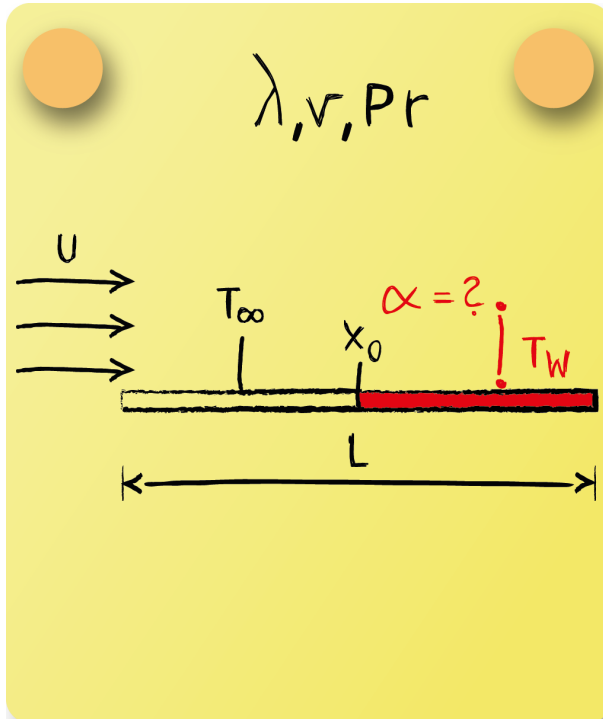




# Heat Transfer Correlation: Task 3



The image describes a plate with length  $L$  which is heated from  $x_0$ . A fluid streams with velocity  $u$  over this plate.

1



$$\overline{Nu}_L = 0.664 Re_L^{1/2} Pr^{1/3} [1 - (\frac{x_0}{L})^{3/4}]^{2/3} / [1 - \frac{x_0}{L}]$$

2



$$Re_L = \begin{matrix} 3.1:2402.7 & |3.2:15197.6 & |3.3:33783.8 & |3.4:1849.1 \\ 3.5:65146.6 \end{matrix}$$

3



$$\overline{Nu}_L = \begin{matrix} 3.1:35.64 & |3.2:146.14 & |3.3:259.7 & |3.4:28.01 \\ 3.5:166.01 \end{matrix}$$

4



$$\overline{\alpha} = \begin{matrix} 3.1:0.179 & |3.2:92.21 & |3.3:16.00 & |3.4:0.271 & |3.5:0.85 \end{matrix}$$