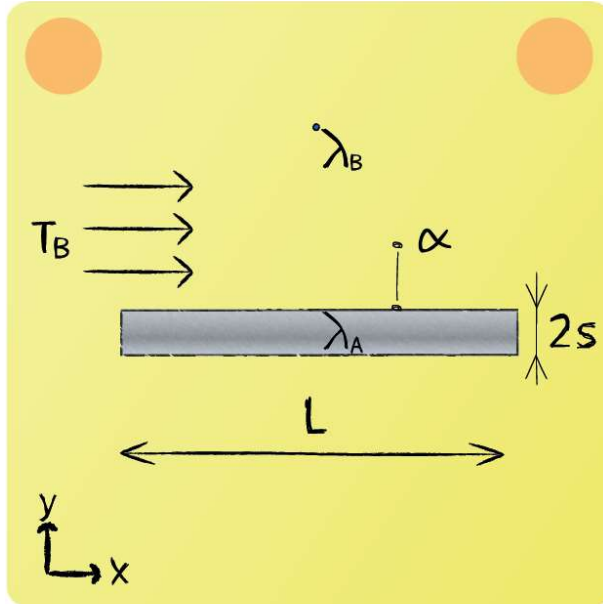


Exam Preparation - Conduction 10



Choose the right equation to determine the heat transfer coefficient α for a given problem-specific Nusselt number, Nu and given the fluid properties.

The Nusselt number Nu can be described as:

$$Nu_L = \frac{\alpha \cdot L}{\lambda_B}$$



Where L is the length of the flat plate where the fluid is flowing over and λ_B is the thermal conductivity of the fluid.

Therefore:

$$\rightarrow \alpha = \frac{Nu_L \cdot \lambda_B}{L}$$