

# WEEK 1 ASSIGNMENT.

- Summary: Heat conduction is a form of transfer of heat. It occurs in solid because of the different temperature. Heat transfers from the high-temperature part to the low-temperature part.

- Answer: method 1.

$$\dot{Q} = kA \frac{\Delta T}{L} = 0.78 \times 20 \times \frac{25}{0.4} = 975 \text{ W.}$$

method 2.

$$R_{\text{wall}} = \frac{L}{kA} = \frac{0.4}{0.78 \times 20} = 0.0256 \text{ K/W.}$$

$$\dot{Q} = \frac{\Delta T}{R_{\text{wall}}} = \frac{25}{0.0256} = 976.6 \text{ W.}$$