Summary:
Conduction heat transfer is an exchange of energy by direct interaction between molecules of a substance containing temperature differences, it occurs in gases, liquids, or solids and has a strong basis in the molecular kinetic theory of physics.

Proof of practice:
Rate of heat transfer into the wall minus rate of heat transfer out of the wall equal rate of change of the energy of the wall.

$$\dot{Q}_{\text{in}} - \dot{Q}_{\text{out}} = \frac{dE_{wall}}{dt}$$

Conduction resistance of the wall: Thermal resistance of the wall against heat conduction.
Thermal resistance of a medium depends on the geometry and the thermal properties of the medium.

$$\dot{Q}_{\text{cond},wall} = kA\frac{T_1 - T_2}{L}$$

$$\dot{Q}_{\text{cond},wall} = \frac{T_1 - T_2}{R_{wall}}$$

$$R_{\text{wall}} = \frac{L}{kA}(^{\circ}C/W)$$

Solution:
(1)

$$\dot{Q} = KA\frac{\Delta T}{L} = 0.78\frac{W}{\text{m}K} \times 20\text{m}^2 \times \frac{25K}{0.4\text{m}} = 975(W)$$

(2)

$$R_{WALL} = \frac{L}{KA} = \frac{0.4}{0.78 \times 20} \approx 0.0256(°C/W)$$

$$\dot{Q} = \frac{\Delta T}{R_{WALL}} = \frac{25}{0.0256} \approx 976.6(W)$$