Condition occur between 2 or more thermodynamic system when they are in contact directly.

*Surface directly in contact

*Temperature difference

*Mainly related to the solid state system

Question:

L= 0.4$m$, A= 20$m^2$, ΔT= 25, and k=0.78$\frac{W}{\mathrm{mK}}$

Solution:

$$\dot{Q} = kA\frac{\Delta T}{L} = 0.78\frac{W}{mK} * 20m^2 * \frac{25}{0.4m} = 975W$$

$$R_{Wall} = \frac{\mathrm{L}}{\mathrm{kA}} = \frac{0.4m}{0.78\mathrm{W}/mK*20m^2} \approx 0.0256\,℃/W$$

$$\dot{Q} = \frac{\Delta T}{R_{Wall}} = \frac{25}{0.0256\,℃/W} \approx 976.56W$$