Important formulas:-

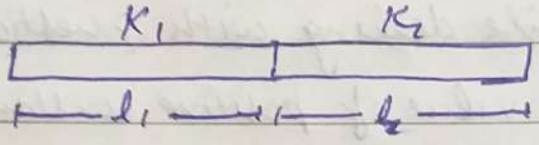
* Thermal resistance $\boxed{(R) = \frac{l}{KA}}$

; K = Thermal conductivity , A = Area of cross-section

* Heat flow in steady state $\boxed{(Q) = \frac{KA(\theta_1 - \theta_2)}{l} t}$

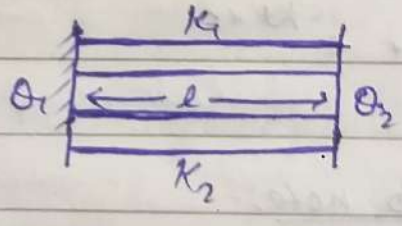
* K_{eff} for series and parallel combinations:-

For series combination :-



$$\boxed{K_{eff} = \frac{(l_1 + l_2)}{\frac{l_1}{K_1} + \frac{l_2}{K_2}}}$$

For parallel combination :-



$$\boxed{K_{eff} = K_1 + K_2}$$

* Emissive power of a body $(u) = e\sigma AT^4$

; σ = Stefan's constant $(5.67 \times 10^{-8}\ W m^{-2} K^{-4})$

* $\lambda_{max} T = b$; $b = 2.88 \times 10^{-3}\ m\text{-}K$ (Wien's constant)

* By Newton's law of cooling:

$$\frac{dT_2}{T_2 - T_1} = -\left(\frac{k}{ms}\right) dt$$

* Intensity of radiation = $\frac{Power}{Area}$