

Key Points:-

- * Qualitatively; by Newton's law of cooling; in equal intervals of time, temperature decrease will be initially much more as compared to further intervals of time.
- * For any body; $0 \leq e \leq 1$ (emissivity)
- * For a black body $e = 1$
- * While dealing with questions on Newton's law of cooling; if value of positive constant 'k' can be eliminated by dividing the equations (or some other way); then use)

$$\frac{T_f - T_i}{\Delta t} = k \left(\frac{T_f + T_i}{2} - T_0 \right)$$

$$* T_2 = T_1 + e^{-kt+c}$$