

Important formulas:-

* $\Delta L = L \alpha \Delta T$

* $\Delta A = A \beta \Delta T$

* $\Delta V = V \gamma \Delta T$

* $\beta = 2\alpha$, $\gamma = 3\alpha$ for isotropic medium

* Temperature conversion from one scale to another:-

⇒ Reading on scale - lower fixed point (LFP)

Upper fixed point (UFP) - lower fixed point (LFP)

* Thermal stress = $\gamma \frac{\Delta l}{l} \Rightarrow \boxed{\gamma \alpha \Delta T}$