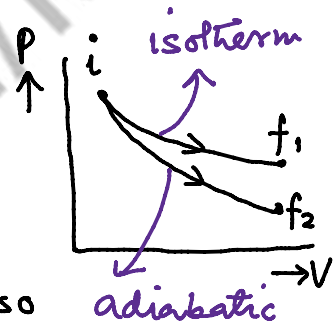


by Eq(7)/Eq(4) $\frac{(\text{slope})_{\text{adia}}}{(\text{slope})_{\text{iso}}} = \frac{-\gamma\left(\frac{P}{V}\right)}{-(P/V)}$

$$\boxed{\frac{(\text{slope})_{\text{adia}}}{(\text{slope})_{\text{iso}}} = \gamma} \quad \text{--- (8)}$$



$\therefore \gamma > 1 \Rightarrow (\text{slope})_{\text{adia}} > (\text{slope})_{\text{iso}}$

Bulk Modulus of a Gas:

Bulk Mod. $B = \frac{dp}{(-dv/v)}$

$$B = -V \cdot \left(\frac{dP}{dV}\right) \quad \text{--- (9)}$$

In Isothermal Process $B_{\text{iso}} = -V \left(\frac{dP}{dV}\right)_{\text{iso}}$

$$B_{\text{iso}} = -V \left(-\frac{P}{V}\right)$$