

ISOLARA:

$$V \text{ cost} \rightarrow \Delta U = 0 \Rightarrow L = 0$$

$$\Delta U = Q - L$$

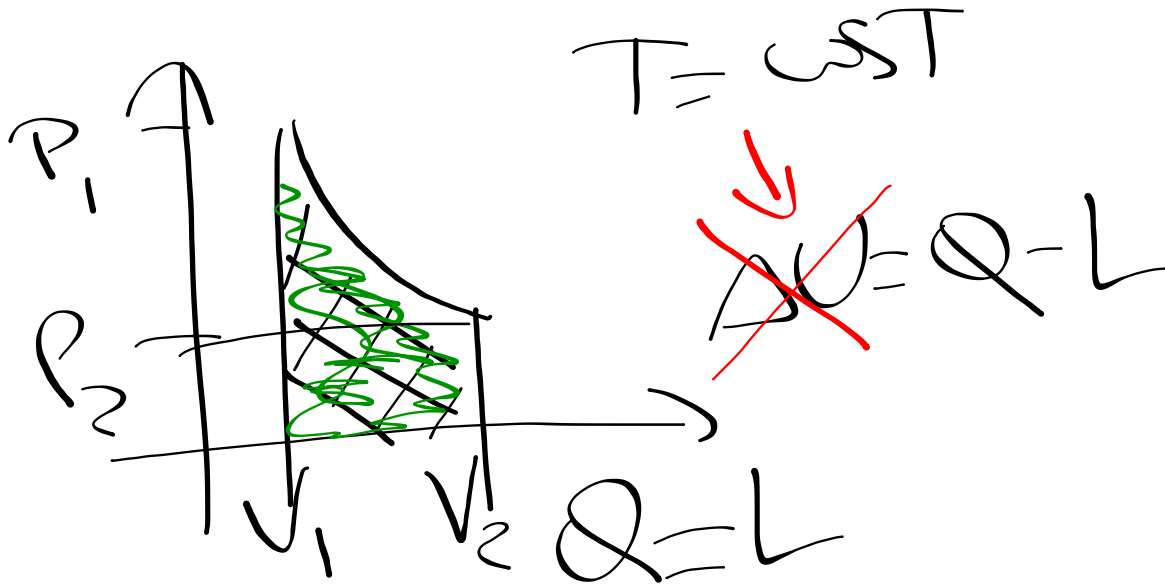
$$\boxed{\Delta U = Q}$$

ISOBARA :

$$L = P \cdot \Delta V$$

$$\Delta U = Q - L$$

ISOTHERM A



$= L = Q$

$$= nR \cdot T \cdot \ln \frac{V_2}{V_1}$$

$$= nRT \ln \left(\frac{P_1}{P_2} \right)$$