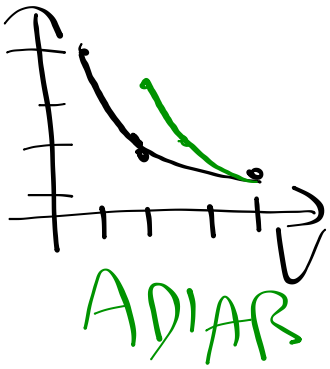
$$P \cdot V = nRT$$

$$P \cdot V = kT$$

ISOTERMA : $P \cdot V = \text{cost}$



NOTE ADIABATICHE

$$P \cdot V^{\gamma} = \text{cost}$$

$$\gamma = \frac{C_p}{C_V} = \frac{n+2}{n}$$

$$P \cdot V^{\gamma} = \text{cost}$$

$$\frac{P \cdot V}{T} = \text{cost}$$

$$T \cdot V^{\gamma - 1} = \text{cost}$$

$$T \cdot P^{\frac{1-\gamma}{\gamma}} = \text{cost}$$

#12

$pV = nRT$

$n = \frac{pV}{RT} = \frac{10^5 Pa \cdot 10^{-1} m^3}{8{,}3 \cdot 310} \rightarrow 39$

$\frac{p_A V_A}{T_A} = \frac{p_C V_C}{T_C} \quad T_C = \frac{p_C V_C T_A}{p_A V_A}$

$T_C = 310K^\circ \cdot \frac{60}{100} \frac{0{,}4}{0{,}1} = 310 \cdot 2{,}4 = 740K^\circ$

$L_{AB} = 0{,}3 \cdot 10^5 J = 30KJ$

$L_{BC} = 0 \quad L_{CA} = -0{,}3 \cdot 80 \cdot 10^3 = -24KJ$

$L_Q = 6KJ$

$Q_Q = 11$

$\Delta U = Q - L$

IN 1 CICLO $\Delta U = 0$

$\Rightarrow Q = L$