

Subiectul B. ELEMENTE DE TERMODINAMICĂ

III. a.	$p_1 / p_2 = V_1 / V_2, p_2 = p_3 = 2p_0$ $L_{tot} = L_{12} + L_{23} = (p_0 + 2p_0)(2V_0 - V_0)/2 = 3p_0V_0/2$ Rezultat final: $L = 450 \text{ J}$
b.	$T_3 = \frac{2p_0 \cdot 3V_0}{\nu R}$ $\Delta U_{13} = \nu C_V (T_3 - T_1)$ $\Delta U_{13} = 25p_0V_0/2$ Rezultat final: $\Delta U_{tot} = 3750 \text{ J}$
c.	$Q_{23} = \nu C_p (T_3 - T_2) = 7p_0V_0$ Rezultat final: $Q_{23} = 2100 \text{ J}$
d.	$C = Q_{12} / \nu (T_2 - T_1)$ $Q_{12} = L_{12} + \Delta U_{12}$ $C = 3p_0V_0 / \nu T$ Rezultat final: $C = 3R \cong 25 \frac{\text{J}}{\text{mol} \cdot \text{K}}$
