Subiectul B. ELEMENTE DE TERMODINAMICĂ

III.a.	$L = Q_1 - \left|Q_2\right|$ Rezultat final: $Q_2 = -500\,\text{J}$
b.	$L_{23} = -\Delta U_{23}$ $L_{23} = -\nu C_V (T_2 - T_1)$ $T_1 = T_2 + \dfrac{L_{23}}{\nu C_V}$ Rezultat final: $T_1 = 900\,\text{K}$
c.	$L_{41} = -\Delta U_{41}$ $L_{41} = -\nu C_V (T_1 - T_2)$ Rezultat final: $L_{41} = -7479\,\text{J}$
d.	$Q_1 = \nu R T_1 \ln\dfrac{V_2}{V_1}$ $\left|Q_2\right| = \nu R T_2 \ln\dfrac{V_3}{V_4}$ $T_1 = 3T_2$ $Q_1 - 3\left|Q_2\right| = 0$ $\ln\dfrac{V_2 V_4}{V_1 V_3} = 0$ Rezultat final: $V_1 V_3 = V_2 V_4$