

Subiectul B. ELEMENTE DE TERMODINAMICĂ

III. a.	$T_1 < T_2 = T_3 < T_4 < T_5$ $\frac{T_1}{T_2} = \frac{1}{2}, \quad \frac{T_2}{T_3} = 1, \quad \frac{T_3}{T_4} = \frac{2}{3}, \quad \frac{T_4}{T_5} = 1, \quad \frac{T_5}{T_1} = 3$
b.	$Q_{12} = \nu C_V \cdot 2T_1$ $Q_{34} = \nu C_V \cdot T_1$ Rezultat final: $Q_{34} = 200 \text{ J}$
c.	$L_{12} = L_{34} = 0$ $\Delta U_{23} = \Delta U_{45} = 0$
d.	$L_{23} = 2\nu RT_1 \ln 2, \quad L_{45} = 3\nu RT_1 \ln \frac{3}{2}$ $L_{23} - L_{45} = \nu RT_1 \ln \frac{32}{27} > 0$ Rezultat final: $L_{23} > L_{45}$
