

Subiectul B. ELEMENTE DE TERMODINAMICĂ

III. a.	$\frac{V_2}{V_1} = 1, \quad \frac{V_3}{V_2} = 4, \quad \frac{V_4}{V_3} = \frac{1}{2}, \quad \frac{V_1}{V_4} = \frac{1}{2}$
b.	$Q_{41} = -\nu RT \ln 2,$ $Q_{23} = 2 \nu RT \ln 4 = 4 \nu RT \ln 2$ Rezultat final: $Q_{41} = -50 \text{ J}$
c.	$Q_{12} = \nu C_V T$ $Q_{34} = -\nu C_p T$ Rezultat final: $x = \frac{Q_{12}}{Q_{34}} = -\frac{3}{5} = -0,6$
d.	$\Delta U_{12} = \nu C_V T$ $\Delta U_{34} = -\nu C_V T$ Rezultat final: $y = \frac{\Delta U_{12}}{\Delta U_{34}} = -1$