

**Subiectul B. ELEMENTE DE TERMODINAMICĂ**

<b>ii. a.</b>	$T_1 = T_2 < T_3 = T_4 < T_5$ $\frac{T_2}{T_1} = 1, \quad \frac{T_3}{T_2} = \frac{3}{2}, \quad \frac{T_4}{T_3} = 1, \quad \frac{T_5}{T_4} = 2, \quad \frac{T_1}{T_5} = \frac{1}{3}$
<b>b.</b>	$Q_{23} = \nu C_V \cdot \frac{1}{2} T_1$ $Q_{45} = \nu C_V \cdot \frac{3}{2} T_1$ <p>Rezultat final: <math>Q_{45} = 3Q_{23} = 600 \text{ J}</math></p>
<b>c.</b>	$L_{23} = L_{45} = 0$ $\Delta U_{12} = \Delta U_{34} = 0$
<b>d.</b>	$L_{12} = \nu RT_1 \ln 2, \quad L_{34} = \frac{3}{2} \nu RT_1 \ln \frac{3}{2}$ <p>Rezultat final: <math>\frac{L_{34}}{L_{12}} = 0,876</math></p>