Subiectul B. ELEMENTE DE TERMODINAMICĂ

II.a.	$N = N_A \nu$ $p_1 V_1 = \nu R T_1$ $N = N_A \dfrac{p_1 V_1}{R T_1}$ Rezultat final: $N = 72 \cdot 10^{22}$
b.	$p_2 = p_1 \left(\dfrac{V_1}{V_2} \right)^{\gamma}$ Rezultat final: $p_2 = \dfrac{p_1}{2^5} = 0{,}625 \cdot 10^5\,\text{Pa}$
c.	$\begin{cases} p_1 V_1^{\gamma} = p_2 V_2^{\gamma} \\ \dfrac{p_1 V_1}{T_1} = \dfrac{p_2 V_2}{T_2} \end{cases} \Rightarrow T_1 V_1^{\gamma - 1} = T_2 V_2^{\gamma - 1}$ $T_2 = T_1 \left(\dfrac{V_1}{V_2} \right)^{\gamma - 1}$ Rezultat final: $T_2 = 200\,\text{K}$
d.	$\begin{cases} p_2 V_2 = \nu R T_2 \\ p_3 V_2 = \nu R T_3 \end{cases}$ $T_3 = \dfrac{p_3 T_2}{p_2}$ Rezultat final: $T_3 = 1600\,\text{K}$