Subiectul B. ELEMENTE DE TERMODINAMICĂ

II.a.	$p_1 = p_0$ Rezultat final: $p_0 = 10^5 \text{ N/m}^2$
b.	$n_1 = \dfrac{N}{V_1} = \dfrac{\upsilon \cdot N_A}{V_1}$ $\upsilon = \dfrac{p_1 \cdot V_1}{R \cdot T_1}$ $n_1 = \dfrac{p_1 \cdot N_A}{R \cdot T_1}$ Rezultat final: $n_1 \cong 2,4 \cdot 10^{25} \text{ m}^{-3}$
c.	$p_1 \cdot V_1 = \upsilon \cdot R \cdot T_1$ $\upsilon = \dfrac{p_1 \cdot V_1}{R \cdot T_1} = \dfrac{p_1 \cdot S \cdot x_1}{R \cdot T_1}$ Rezultat final: $\upsilon = 0,4 \, \text{moli}$
d.	$p_1 \cdot V_2 = \upsilon \cdot R \cdot T_2$ $V_2 = S \cdot x_2$ $x_2 = \dfrac{\upsilon \cdot R \cdot T_2}{p_1 \cdot S} = x_1 \dfrac{T_2}{T_1}$ Rezultat final: $x_2 = 64 \, \text{cm}$