

$n^{\circ} 2$

$$V = 120 \text{ L} \rightarrow 0,12 \text{ m}^3$$

$$T = ?$$

$$n = 7 \text{ mol}$$

$$P = 1,01 \times 10^5 \text{ Pa}$$

$$a) \quad PV = nRT$$

$$T = \frac{PV}{nR} = \frac{1,01 \times 10^5 \text{ Pa} \cdot 0,12 \text{ m}^3}{7 \text{ mol} \cdot 8,31 \text{ J/(mol} \cdot \text{K)}} = 208 \text{ K}$$

$$V = 0,12 \text{ m}^3$$

$$n = 10 \text{ mol}$$

$$P = ?$$

$$T = 15^{\circ}\text{C} \rightarrow 288,15 \text{ K}$$

$$b) \quad PV = nRT$$

$$P = \frac{n \cdot R \cdot T}{V} = \frac{10 \text{ mol} \cdot 8,31 \text{ J/(mol} \cdot \text{K)} \cdot 288,15 \text{ K}}{0,12 \text{ m}^3} = 1,99 \times 10^5 \text{ Pa}$$