

Problema0256: Calcula a masa molar dun gas se 34,67g do mesmo a 25°C e 740 mm Hg ocupan 15L.

$$P \cdot V = n \cdot R \cdot T = \frac{m}{M_m} \cdot R \cdot T$$

$$M_m = \frac{m \cdot R \cdot T}{P \cdot V} = \frac{34,67 \text{ g} \cdot 0,082 \frac{\text{atm} \cdot \text{L}}{\text{mol} \cdot \text{K}} \cdot 298 \text{ K}}{\frac{740 \text{ mmHg}}{760 \text{ mmHg/atm}} \cdot 15 \text{ L}} = 58,0 \frac{\text{g}}{\text{mol}}$$