

Дано:

~~$n(\text{возд}) = 29,4 \text{ моль}$~~

$$m(\text{C}_8\text{H}_{18}) = 32$$

$$V(\text{возд}) = ?$$

Решение:



$$V(\text{C}_8\text{H}_{18}) = \frac{32}{114 \text{ г/моль}} = 0,28 \text{ моль}$$

$$V(\text{O}_2) = 0,33 \text{ моль}$$

$$V(\text{O}_2) = V(\text{O}_2) \cdot V_m = 0,33 \text{ моль}$$

$$22,4 \text{ л/моль} = 7,392 \text{ л}$$

$$\varphi(\text{O}_2) \text{ в возд} = 21\%$$

$$\varphi(\text{O}_2) = \frac{V(\text{O}_2)}{V(\text{возд})} \quad V(\text{возд}) = \frac{V(\text{O}_2)}{\varphi(\text{O}_2)} = \frac{7,392 \text{ л}}{0,21} =$$

$$= 35,2 \text{ л}$$

Ответ: 35,2 л