

**ERREPASO-ARIKETAK #03**

<b>Izena</b>	<b>Kurtsoa</b>
--------------	----------------

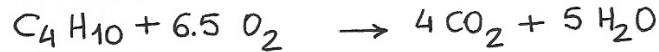
<b>1</b>	<b>FORMULAZIOA:</b> Osatu ondoko taula
----------	---

<b>Izenak</b>	<b>Egiturak</b>	<b>Formulak</b>
Ur oxigenatua	$H-\ddot{O}-\ddot{O}-H$	$H_2O_2$
Azido sulfhidrikoa	$H-\ddot{S}-H$	$H_2S$
Kaltzio hidroxidoa	$Ca^{2+} \quad 2x \quad \ddot{O}-H$	$Ca(OH)_2$
Amoniakoa	$\begin{array}{c} H-\ddot{N}-H \\   \\ H \end{array}$	$NH_3$
Magnesio sulfatoa	$Mg^{2+} \quad \begin{array}{c} :O: \\    \\ :\ddot{O}-S-\ddot{O}: \\    \\ :O: \end{array}$	$MgSO_4$
Azido sulfurikoa	$\begin{array}{c} :O: \\    \\ H-\ddot{O}-S-\ddot{O}-H \\    \\ :O: \end{array}$	$H_2SO_4$
Azido nitrikoa	$\begin{array}{c} H-\ddot{O}-N=O: \\    \\ :O: \end{array}$	$HNO_3$
Potasio permanganatoa	$K^+ \quad \begin{array}{c} :O: \\    \\ :\ddot{O}-Mn=O: \\    \\ :O: \end{array}$	$KMnO_4$



35 gramo butano ( $C_4H_{10}$ ) erretzen dira (konbustio-erreakzioa).

1. Doitu ekuazio kimikoa



2. Kalkulatu zenbat gramo oxigeno behar diren butanoarekin batera erretzeko

$$m(O_2) = 35 \text{ g } C_4H_{10} \times \frac{208 \text{ g } O_2}{58 \text{ g } C_4H_{10}} = 125,5 \text{ g } O_2$$

$$\boxed{125,5 \text{ g } O_2}$$

$$Mm(O_2) = 32 \text{ g/mol}$$

$$Mm(C_4H_{10}) = (4 \times 12) + 10 = 58 \text{ g/mol}$$

3. Kalkulatu zenbat gramo ur lortuko diren

$$m(H_2O) = 35 \text{ g } C_4H_{10} \times \frac{90 \text{ g } H_2O}{58 \text{ g } C_4H_{10}} = \boxed{54,3 \text{ g } H_2O}$$

$$Mm(H_2O) = 18 \text{ g/mol}$$

4. Kalkulatu zenbat litro karbono dioxido lortuko diren baldintza hauetan neurtuta: presioa 800 mm Hg eta temperatura 37 °C

$$pV = nRT \rightarrow V = \frac{nRT}{p}$$

$$n(CO_2) = 35 \text{ g } C_4H_{10} \times \frac{4 \text{ mol } CO_2}{58 \text{ g } C_4H_{10}} = 2,4 \text{ mol } CO_2$$

$$V = \frac{2,4 \text{ mol} \times 0,082 \frac{\text{atm} \cdot \text{L}}{\text{K} \cdot \text{mol}} \times (273 + 37) \text{ K}}{\frac{800}{760} \text{ atm}} = 57,96 \text{ L } CO_2$$

**DATUAK**

Masa atomikoak: H=1; O=16; C=12

R=0,082 atm.L/(K.mol)