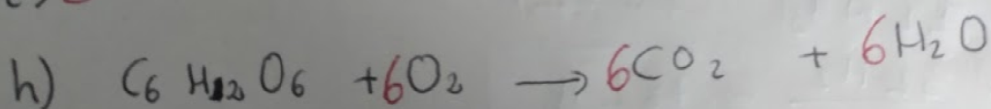
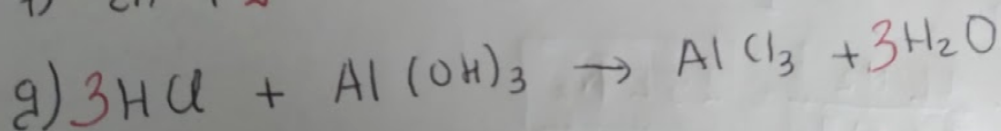
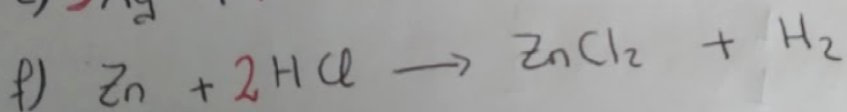
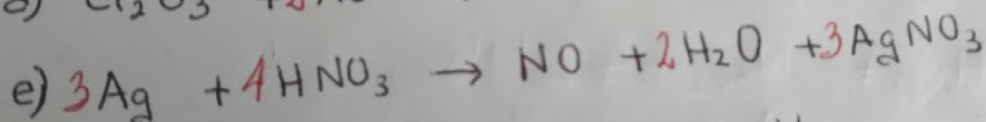
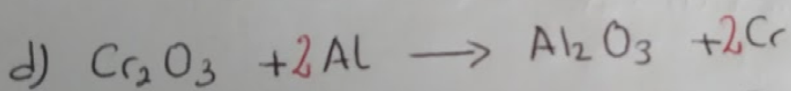
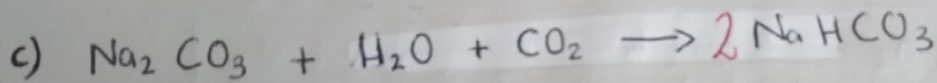
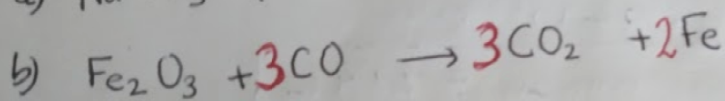
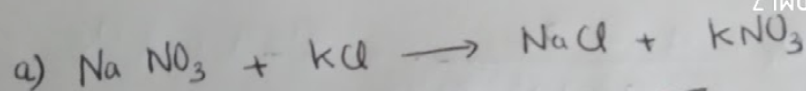


1-



2.

$$\left. \begin{array}{l} 10\text{mL CH}_3\text{OH} \\ d = 0.79 \text{ g/mL} \end{array} \right\} \quad d = \frac{m}{V} \rightarrow m = d \cdot V$$

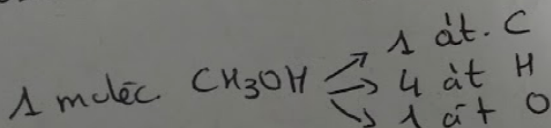
$$m = 10 \cdot 0.79 = 7.9 \text{ g CH}_3\text{OH}$$

$$M_m(\text{CH}_3\text{OH}) = 12 \cdot 1 + 4 \cdot 1 + 16 \cdot 1 = 32 \text{ g/mol}$$

$$7.9 \text{ g CH}_3\text{OH} \cdot \frac{1 \text{ mol CH}_3\text{OH}}{32 \text{ g}} = 0.25 \text{ mol CH}_3\text{OH}$$

$$1 \text{ mol} \rightarrow 6.02 \cdot 10^{23} \text{ moléc}$$

$$0.25 \text{ mol CH}_3\text{OH} \cdot \frac{6.02 \cdot 10^{23} \text{ moléc}}{1 \text{ mol}} = 1.51 \cdot 10^{23} \text{ moléc. CH}_3\text{OH}$$



$$1.51 \cdot 10^{23} \text{ moléc CH}_3\text{OH} \cdot \frac{4 \text{ át. H}}{1 \text{ moléc. CH}_3\text{OH}} = 6.04 \cdot 10^{23} \text{ át. H}$$

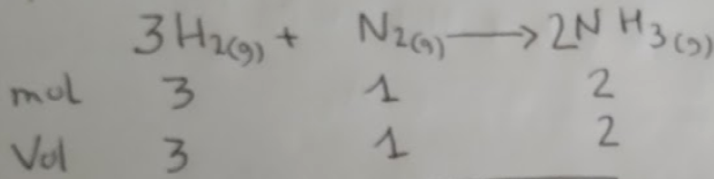
3.

$$1'35 \cdot 10^{24} \text{ moléculas } O_2 \cdot \frac{1 \text{ mol } O_2}{6'02 \cdot 10^{23} \text{ moléculas}} = 2'24 \text{ mol } O_2$$

$$\boxed{1 \text{ mol gas en condiciones normales} = 22'4 \text{ L}}$$

$$2'24 \text{ mol } O_2 \cdot \frac{22'4 \text{ L}}{1 \text{ mol } O_2 \text{ c.n.}} = \boxed{50'2 \text{ L } O_2}$$

4.

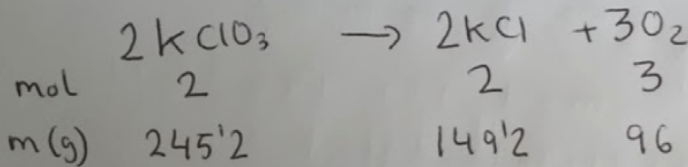


Están en estado gaseoso e a P e T están constantes. Polo tanto a relación e mol tamén se pode facer en vol.

$$50 \text{ L } NH_3 \cdot \frac{1 \text{ L } N_2}{2 \text{ L } NH_3} = \boxed{25 \text{ L } N_2}$$

$$50 \text{ L } NH_3 \cdot \frac{3 \text{ L } H_2}{2 \text{ L } NH_3} = \boxed{75 \text{ L } H_2}$$

5.



Mm(KCl) = 74'6 g/mol
Mm(O₂) = 32 g/mol

$$a) \quad 1'5 \text{ mol } KClO_3 \cdot \frac{2 \text{ mol } KCl}{2 \text{ mol } KClO_3} = \boxed{1'5 \text{ mol } KCl}$$

$$1'5 \text{ mol } KCl \cdot \frac{74'6 \text{ g}}{1 \text{ mol } KCl} = \boxed{111'9 \text{ g } KCl}$$

$$b) \quad 1'5 \text{ mol } KClO_3 \cdot \frac{3 \text{ mol } O_2}{2 \text{ mol } KClO_3} = 2'25 \text{ mol } O_2$$

$$2'25 \text{ mol } O_2 \cdot \frac{22'4 \text{ L}}{1 \text{ mol } O_2 \text{ (condicións normais)}} = \boxed{50'4 \text{ L}}$$

