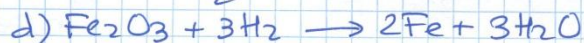
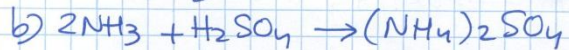


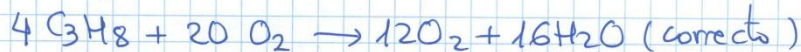
SOLUCIONES TEMA 3: As reacciones químicas 30/10/20

16) máx 93: Non poden cambiar as fórmulas

17) máx 93

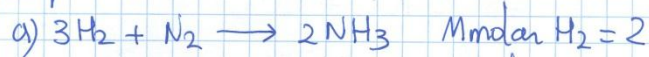


18) máx 93

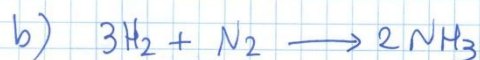


a proporción é a mesma ca anterior

19) máx 95



$$\frac{6g H_2}{34g NH_3} = \frac{7,878g H_2}{x} \quad x = 44,6g NH_3$$



$$x = 44,6 - 7,878 = 36,722g N_2$$

20) pàx 95



$$M_{\text{molar}} \text{Cl}_2 = 71 \text{g}$$

$$M_{\text{molar}} \text{Fe} = 55,8 \text{g}$$

$$M_{\text{molar}} \text{FeCl}_3 = 162,2 \text{g}$$



$$71 \cdot 3 \text{g} + 55,8 \cdot 2 \text{g} \rightarrow 2 \cdot 162,2$$

$$212,7 \text{g} + 111,7 \text{g} \rightarrow 324,4 \text{g}$$

$$\frac{212,7 \text{g Cl}_2}{111,7 \text{g Fe}} \neq \frac{531 \text{g Cl}_2}{300 \text{g Fe}}$$

Non estan en cantidades estequiométricas

$$b) \frac{212,7 \text{g Cl}_2}{111,6 \text{g Fe}} = \frac{531 \text{g Cl}_2}{x} \quad x = 278 \text{g Fe}$$

$$c) \frac{212,7 \text{g Cl}_2}{324,4 \text{g FeCl}_3} = \frac{531,75 \text{g Cl}_2}{x} \quad x = 812 \text{g FeCl}_3$$

21) pàx 95



$$16 \text{g} + 2 \cdot 32 \text{g} \rightarrow 18 \cdot 2 \text{g} + 44 \text{g}$$

$$16 \text{g} + 64 \text{g} \rightarrow 36 \text{g} + 44 \text{g}$$

$$M_{\text{molar}} \text{CH}_4 = 16 \text{g}$$

$$M_{\text{molar}} \text{O}_2 = 16 \cdot 2 = 32 \text{g}$$

$$M_{\text{molar}} \text{H}_2\text{O} = 18 \text{g}$$

$$M_{\text{molar}} \text{CO}_2 = 44 \text{g}$$

$$\frac{16 \text{g CH}_4}{44 \text{g CO}_2} = \frac{1 \text{g}}{x} \quad x = 2,75 \text{g CO}_2$$



$$58 \cdot 2 \text{g} + 13 \cdot 32 \text{g} \rightarrow 18 \cdot 10 \text{g} + 8 \cdot 44 \text{g} \quad M_{\text{molar}} \text{C}_4\text{H}_{10} = 58 \text{g}$$

$$116 \text{g} + 416 \text{g} \rightarrow 180 \text{g} + 352 \text{g}$$

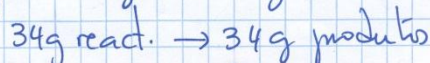
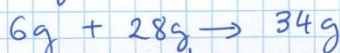
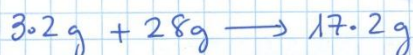
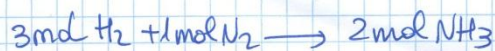
$$\frac{116 \text{g C}_4\text{H}_{10}}{352 \text{g CO}_2} = \frac{1 \text{g C}_4\text{H}_{10}}{x} \quad x = 3,03 \text{g CO}_2$$

b) El gas natural porque produce menos residuos de  $\text{CO}_2$

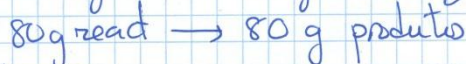
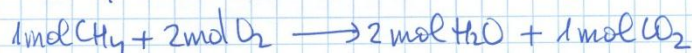
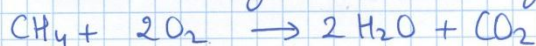


22) páx 95

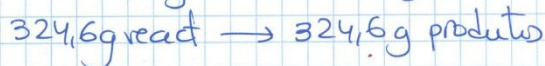
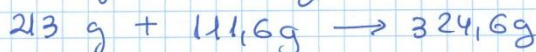
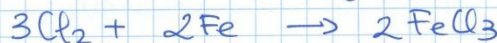
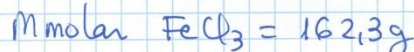
a) Mmolar  $H_2 = 2g$  Mmolar  $N_2 = 28g$  Mmolar  $NH_3 = 17g$



b) Mmolar  $CH_4 = 16g$  Mmolar  $O_2 = 32g$  Mmolar  $H_2O = 18g$



c) Mmolar  $Cl_2 = 35,5 \cdot 2 = 71g$  Mmolar  $Fe = 55,8g$



d) Mmolar  $C_4H_{10} = 12 \cdot 4 + 10 = 58g$



30) páx 99



$$M_{\text{molar MnO}_2} = 87 \text{ g}$$

$$M_{\text{molar Cl}_2} = 71 \text{ g}$$



$$\frac{87 \text{ g MnO}_2}{71 \text{ g Cl}_2} = \frac{x}{5 \text{ g Cl}_2} \quad x = 6,13 \text{ g MnO}_2$$

31) páx 99

$$M_{\text{molar MnCl}_2} = 126 \text{ g}$$

$$\frac{87 \text{ g MnO}_2}{126 \text{ g MnCl}_2} = \frac{6,13 \text{ g MnO}_2}{x} \quad x = 8,87 \text{ g MnCl}_2$$

32) páx 99



$$M_{\text{molar C}_4\text{H}_{10}} = 58 \text{ g}$$

$$M_{\text{molar CO}_2} = 44 \text{ g}$$

$$\frac{116 \text{ g C}_4\text{H}_{10}}{352 \text{ g CO}_2} = \frac{100 \cdot 12\,500 \text{ g C}_4\text{H}_{10}}{x}$$

$$x = 3793103 \text{ g} = 3793 \text{ kg CO}_2$$







