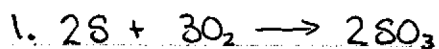
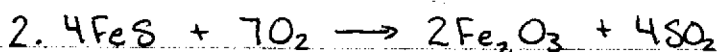


Sheet #2



$$9 \text{ mol } O_2 \times \frac{2 \text{ mol } S}{3 \text{ mol } O_2} = 6 \text{ mol } S$$



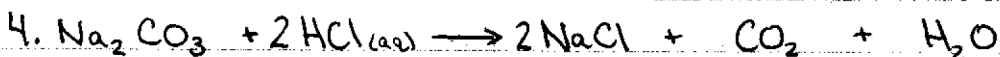
$$7.81 \text{ g } O_2 \times \frac{1 \text{ mol } O_2}{32 \text{ g } O_2} \times \frac{4 \text{ mol } FeS}{7 \text{ mol } O_2} \times \frac{87.92 \text{ g } FeS}{1 \text{ mol } FeS} = 12.3 \text{ g } FeS$$

$$6.79 \text{ mol } FeS \times \frac{7 \text{ mol } O_2}{4 \text{ mol } FeS} = 11.88 \text{ mol } O_2$$



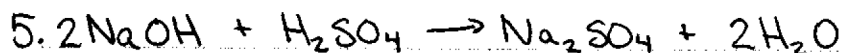
$$6.4 \text{ g } CH_4 \times \frac{1 \text{ mol } CH_4}{16.05 \text{ g } CH_4} \times \frac{2 \text{ mol } O_2}{1 \text{ mol } CH_4} \times \frac{32 \text{ g } O_2}{1 \text{ mol } O_2} = 25.52 \text{ g } O_2$$

$$6.4 \text{ g } CH_4 \times \frac{1 \text{ mol } CH_4}{16.05 \text{ g } CH_4} \times \frac{1 \text{ mol } CO_2}{1 \text{ mol } CH_4} \times \frac{44.01 \text{ g } CO_2}{1 \text{ mol } CO_2} = 17.55 \text{ g } CO_2$$



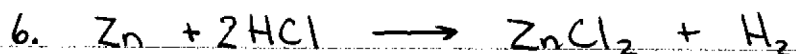
$$286 \text{ g } CO_2 \times \frac{1 \text{ mol } CO_2}{44.01 \text{ g } CO_2} \times \frac{1 \text{ mol } Na_2CO_3}{1 \text{ mol } CO_2} \times \frac{106.01 \text{ g } Na_2CO_3}{1 \text{ mol } Na_2CO_3} = 688.91 \text{ g } Na_2CO_3$$

$$286 \text{ g } CO_2 \times \frac{1 \text{ mol } CO_2}{44.01 \text{ g } CO_2} \times \frac{2 \text{ mol } HCl}{1 \text{ mol } CO_2} \times \frac{36.46 \text{ g } HCl}{1 \text{ mol } HCl} = 473.87 \text{ g } HCl$$



$$8.61 \text{ mol } Na_2SO_4 \times \frac{2 \text{ mol } NaOH}{1 \text{ mol } Na_2SO_4} = 17.22 \text{ mol } NaOH$$

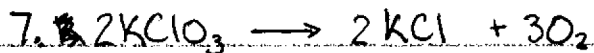
$$4.77 \text{ mol } Na_2SO_4 \times \frac{1 \text{ mol } H_2SO_4}{1 \text{ mol } Na_2SO_4} \times \frac{98.09 \text{ g } H_2SO_4}{1 \text{ mol } H_2SO_4} = 467.9 \text{ g } H_2SO_4$$



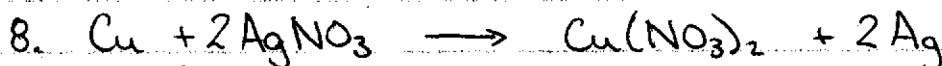
$$20 \text{ g } Zn \times \frac{1 \text{ mol } Zn}{65.41 \text{ g } Zn} \times \frac{1 \text{ mol } ZnCl_2}{1 \text{ mol } Zn} \times \frac{136.31 \text{ g } ZnCl_2}{1 \text{ mol } ZnCl_2} = 41.68 \text{ g } ZnCl_2$$

$$20 \text{ g } Zn \times \frac{1 \text{ mol } Zn}{65.41 \text{ g } Zn} \times \frac{1 \text{ mol } H_2}{1 \text{ mol } Zn} \times \frac{2.02 \text{ g } H_2}{1 \text{ mol } H_2} = 0.618 \text{ g } H_2$$

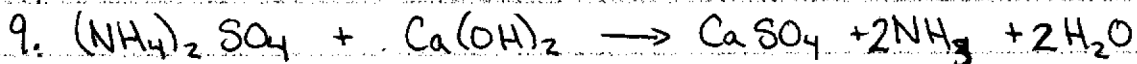
$$20g \text{ Zn} \times \frac{1 \text{ mol Zn}}{65.39g \text{ Zn}} \times \frac{2 \text{ mol HCl}}{1 \text{ mol Zn}} \times \frac{36.46g \text{ HCl}}{1 \text{ mol HCl}} = 22.3g \text{ HCl}$$



$$5g \text{ KClO}_3 \times \frac{1 \text{ mol KClO}_3}{122.55g \text{ KClO}_3} \times \frac{3 \text{ mol O}_2}{2 \text{ mol KClO}_3} \times \frac{32g \text{ O}_2}{1 \text{ mol O}_2} = 1.96g \text{ O}_2$$



$$4g \text{ AgNO}_3 \times \frac{1 \text{ mol AgNO}_3}{169.88g \text{ AgNO}_3} \times \frac{1 \text{ mol Cu}}{2 \text{ mol AgNO}_3} \times \frac{63.55g \text{ Cu}}{1 \text{ mol Cu}} = .748g \text{ Cu}$$



$$20g \text{ Ca}(\text{OH})_2 \times \frac{1 \text{ mol Ca}(\text{OH})_2}{74.1g \text{ Ca}(\text{OH})_2} \times \frac{2 \text{ mol NH}_3}{1 \text{ mol Ca}(\text{OH})_2} \times \frac{17.04g \text{ NH}_3}{1 \text{ mol NH}_3} = 9.2g \text{ NH}_3$$



$$30g \text{ NaCl} \times \frac{1 \text{ mol NaCl}}{58.45g \text{ NaCl}} \times \frac{2 \text{ mol HCl}}{2 \text{ mol NaCl}} \times \frac{36.46g \text{ HCl}}{1 \text{ mol HCl}} = 18.7g \text{ HCl}$$