

# Stoichiometry WS # 1

$$① 3.5 \text{ mol } O_2 \times \frac{2 \text{ mol } H_2O}{1 \text{ mol } O_2} =$$

$$② 50 \text{ g } O_2 \times \frac{1 \text{ mol } O_2}{32 \text{ g } O_2} \times \frac{2 \text{ mol } H_2O}{1 \text{ mol } O_2} \times \frac{18 \text{ g } H_2O}{1 \text{ mol } H_2O} =$$

$$③ 6 \text{ mol } N_2 \times \frac{2 \text{ mol } NH_3}{1 \text{ mol } N_2} \times \frac{17 \text{ g } NH_3}{1 \text{ mol } NH_3} =$$

$$④ 100 \text{ g } Cu \times \frac{1 \text{ mol } Cu}{63.5 \text{ g } Cu} \times \frac{2 \text{ mol } Ag}{1 \text{ mol } Cu} \times \frac{107 \text{ g } Ag}{1 \text{ mol } Ag} =$$

$$⑤ 100 \text{ g } AgNO_3 \times \frac{1 \text{ mol } AgNO_3}{169 \text{ g } AgNO_3} \times \frac{2 \text{ mol } Ag}{2 \text{ mol } AgNO_3} \times \frac{107 \text{ g } Ag}{1 \text{ mol } Ag} =$$

$$⑥ 50 \text{ g } SO_3 \times \frac{1 \text{ mol } SO_3}{80 \text{ g } SO_3} \times \frac{1 \text{ mol } O_2}{2 \text{ mol } SO_3} \times \frac{32 \text{ g } O_2}{1 \text{ mol } O_2} =$$

$$⑦ 25 \text{ g } N_2 \times \frac{1 \text{ mol } N_2}{28 \text{ g } N_2} \times \frac{2 \text{ mol } Li_3N}{1 \text{ mol } N_2} \times \frac{34.7 \text{ g } Li_3N}{1 \text{ mol } Li_3N} =$$

$$⑧ 30 \text{ g } CH_4 \times \frac{1 \text{ mol } CH_4}{16 \text{ g } CH_4} \times \frac{1 \text{ mol } CO_2}{1 \text{ mol } CH_4} \times \frac{44 \text{ g } CO_2}{1 \text{ mol } CO_2} =$$

$$9) 5g \text{ Cu} \times \frac{1 \text{ mol Cu}}{63.5g \text{ Cu}} \times \frac{2 \text{ mol Ag}}{1 \text{ mol Cu}} \times \frac{107g \text{ Ag}}{1 \text{ mol Ag}} =$$

$$10) 60g \text{ HCl} \times \frac{1 \text{ mol HCl}}{36.5g \text{ HCl}} \times \frac{1 \text{ mol H}_2}{2 \text{ mol HCl}} \times \frac{2g \text{ H}_2}{1 \text{ mol H}_2} =$$

$$11) 14g \text{ KClO}_3 \times \frac{1 \text{ mol KClO}_3}{122.5g \text{ KClO}_3} \times \frac{3 \text{ mol O}_2}{2 \text{ mol KClO}_3} \times \frac{32g \text{ O}_2}{1 \text{ mol O}_2} =$$

$$12) 50g \text{ Al(OH)}_3 \times \frac{1 \text{ mol Al(OH)}_3}{78g \text{ Al(OH)}_3} \times \frac{3 \text{ mol H}_2\text{O}}{1 \text{ mol Al(OH)}_3} \times \frac{18g \text{ H}_2\text{O}}{1 \text{ mol H}_2\text{O}} =$$

$$13) 20g \text{ H}_2\text{O} \times \frac{1 \text{ mol H}_2\text{O}}{18g \text{ H}_2\text{O}} \times \frac{2 \text{ mol NH}_3}{6 \text{ mol H}_2\text{O}} \times \frac{17g \text{ NH}_3}{1 \text{ mol NH}_3} =$$