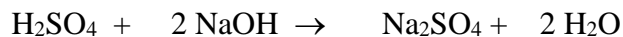


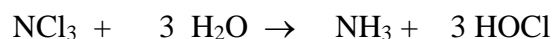
## Stoichiometry Calculation Practice Worksheet

1. Calculate the number of moles of NaOH that are needed to react with 500.0 g of H<sub>2</sub>SO<sub>4</sub> according to the following equation:



**ANS: 10.19 mol**

2. Calculate the mass of NH<sub>3</sub> that can be produced from the reaction of 125 g of NCl<sub>3</sub> according to the following equation:



**ANS: 17.7 g**

3. Identify the limiting reactant and determine the mass of CO<sub>2</sub> that can be produced from the reaction of 25.0 g of C<sub>3</sub>H<sub>8</sub> with 75.0 g of O<sub>2</sub> according to the following equation:



**ANS: 61.9 g**

4. How many grams of SO<sub>2</sub> are produced when 152 g of CS<sub>2</sub> react with 48.0 g of O<sub>2</sub> according to the following equation:



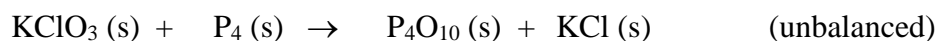
**ANS: 64.1 g**

5. When 50.0 g of  $\text{MgCO}_3$  react completely with  $\text{H}_3\text{PO}_4$ , as shown below, 15.8 g of  $\text{CO}_2$  are produced. What is the percent yield for this reaction?



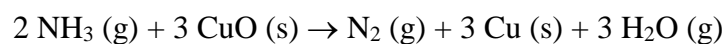
**ANS: 60.5%**

6. How many grams of  $\text{P}_4\text{O}_{10}$  can be produced from the reaction of 52.9 g of  $\text{KClO}_3$  with excess phosphorous as shown below:



**ANS: 36.8 g**

7. Given the equation below, determine the limiting reactant, and calculate how many grams of Cu can be formed from the reaction of 18.1 g of  $\text{NH}_3$  and 90.4 g of  $\text{CuO}$ .



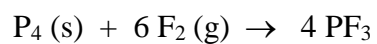
**ANS: 72.2 g**

8. When 50.0 g of  $\text{MgCO}_3$  react completely with  $\text{H}_3\text{PO}_4$ , as shown below, 15.8 g of  $\text{CO}_2$  is produced. Determine the theoretical and percent yield for this reaction?



**ANS: 26.1 g; 60.5%**

9. What mass of  $\text{F}_2$  is needed to produce 120.0 g of  $\text{PF}_3$ , as shown, if the reaction has a 78.1% yield?



**ANS: 99.6 g**