

Name: \_\_\_\_\_ Per \_\_\_\_\_

## STIOCHIOMETRY

*Practice Sheet #26*

1. Given the following equation:  $2 \text{KClO}_3 \rightarrow 2 \text{KCl} + 3 \text{O}_2$

How many moles of  $\text{O}_2$  can be produced by letting 12.00 moles of  $\text{KClO}_3$  react?

2. Given the following equation:  $2 \text{K} + \text{Cl}_2 \rightarrow 2 \text{KCl}$

a. How many grams of  $\text{KCl}$  is produced from 2.50 g of  $\text{K}$ ?

b. How many grams of  $\text{KCl}$  is produced from 1.00 g of  $\text{Cl}_2$ ?

3. Given the following equation:  $8 \text{Fe} + \text{S}_8 \rightarrow 8 \text{FeS}$

a. What mass of iron is needed to react with 16.0 grams of sulfur?

b. How many grams of  $\text{FeS}$  are produced?

4. Given the following equation:  $\text{Cu} + 2 \text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2 \text{Ag}$   
a. How many moles of Cu are needed to react with 3.50 moles of  $\text{AgNO}_3$ ?

b. If 89.5 grams of Ag were produced, how many grams of Cu reacted?

5. The average human requires 120.0 grams of glucose ( $\text{C}_6\text{H}_{12}\text{O}_6$ ) per day. How many grams of  $\text{CO}_2$  (in the photosynthesis reaction) are required for this amount of glucose?

The photosynthetic reaction is:  $6 \text{CO}_2 + 6 \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{O}_2$

6. With out looking at your notes (do this as a review) fill out the following table.

What is the ratio for Avogadro's number?	
Where do you find the molar mass of an atom?	
What is Avogadro's ratio used for?	
What is the definition of molar mass?	

