## #4-7: Stoichiometry WS1

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

Directions: Answer the following mole ratio conversions. Some are prefilled for you – just fill in the blanks! You must show all work to receive credit including units! Round to 2 decimal places.

Equation 1: 
$$2 \text{ KClO}_3 \rightarrow 2 \text{ KCl} + 3 \text{ O}_2$$

Molar Mass:

1. How many **moles of O**<sub>2</sub> will be formed from 3.76 grams of KClO<sub>3</sub>?



Molar Mass:

6. How many grams of Fe<sub>2</sub>O<sub>3</sub> are produced when 42.7 grams of Fe is reacted?



11. How many grams of  $CO_2$  are produced from the combustion of 100.0 grams of ( $C_4H_{10}$ )?

12. How many grams of  $O_2$  are needed to react with 100.0 grams of  $C_4H_{10}$ ?

13. How many grams of  $H_2O$  are produced when 5.38 grams of  $O_2$  reacted?

14. How many grams of  $H_2O$  are produced when 2.3 x 10<sup>24</sup> molecules of  $O_2$  reacted?