# CHEMISTRY 3A --- WORKSHEET 13
## CHAPTER 10

1. Using the chemical equation below, determine how many grams of oxygen would be required to react with 2.4 moles of aluminum.

$$4\ Al + 3\ O_2 \rightarrow 2\ Al_2O_3$$

2. Using the chemical equation below, determine how many pounds of water will be produced by the combustion of 2 kg of $B_4H_{10}$.

$$2\ B_4H_{10} + 11\ O_2 \rightarrow 4\ B_2O_3 + 10\ H_2O$$

3. Using the equation below, determine how many grams of $CO_2$ will be produced from the reaction of 20 g of oxygen. If 14.8 g of $CO_2$ are produced in the reaction, what is the percent yield?

$$2\ C_8H_{18} + 25\ O_2 \rightarrow 16\ CO_2 + 18\ H_2O$$