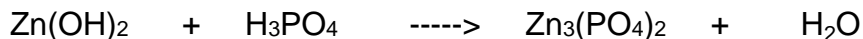


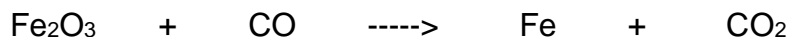
## Stoichiometry WorkSheet #1

Answer the following questions on your own paper. Show all work. Circle the final answer, giving units and the correct number of significant figures.

1. Based on the following equation, how many moles of each product are produced when 5.9 moles of  $\text{Zn}(\text{OH})_2$  are reacted with  $\text{H}_3\text{PO}_4$ ? (You need to balance the equation.)



2. How many grams of hydrogen are produced when 5.9 moles of aluminum reacts with excess hydrochloric acid? (You need to write out the balanced equation.)
3. How many grams of calcium hydroxide will be needed to completely react with 29.5 g of sodium phosphate?
4. How many grams of silver (I) chloride can be produced from the reaction of 59.4 g of silver (I) nitrate with excess sodium chloride?
5. How many grams of oxygen are required for the complete combustion of 47.2 g of butane,  $\text{C}_4\text{H}_{10}$ ?
6. Based on the following equation, what would be the minimum amount of carbon monoxide used if you need to produce 18.7 g of Fe? (Note: The equation needs to be balanced first.)



7. Sodium nitrate decomposes to give sodium nitrite and oxygen. Write the balanced equation.
8. Using the equation from problem 7, if 25.0 g of sodium nitrate decompose, how many grams of each product should be produced?