**Name: Period: Seat#:**

**Worksheet #5**

**Show work and include ALL units. Use a *single dimensional analysis* line method for conversions!**

1. *14.8g of C3H8 and 3.44 g of O2 react in the following reaction:*C3H8    +   5O2    🡪    3CO2    +    4H2O   
   1. Determine the limiting reagent and the excess reagent
   2. Determine the number of grams of H2O produced
   3. Determine the number of grams of the excess reagent leftover
2. *10.0 g of Al2(SO3)3 is reacted with 10.0 g of NaOH in the following reaction:*

Al2(SO3)3 + 6NaOH 🡪 3Na2SO3 + 2Al(OH)3

* 1. Determine the limiting reagent and the excess reagent
  2. Determine the number of grams of Na2SO3 produced
  3. Determine the number of grams of the excess reagent leftover

1. *25.4 g of Al2O3 is reacted with 10.2 g of Fe:*

4 Al2O3+    9 Fe    🡪    3 Fe3O4    +    8 Al

* 1. Determine the limiting reagent and the excess reagent
  2. Determine the number of moles of Fe3O4 produced
  3. Determine the number of grams of the excess reagent leftover

1. When copper (II) chloride reacts with sodium nitrate, copper (II) nitrate and sodium chloride are formed.
2. Write the balanced equation for the reaction given above.
3. If 15 g of copper (II) chloride react with 20 g of sodium nitrate what is the limiting reagent for the reaction?
4. How much sodium chloride can be formed in grams?
5. How many grams of copper (II) nitrate is formed?
6. How many grams of the excess reagent are left over in this reaction?
7. If 11.3 g of sodium chloride was actually formed in the reaction, what is the percent yield of this reaction?
8. 1000 grams of sodium chloride is combined with 2000 grams of barium phosphate
9. How many grams of each product are made?
10. How many grams of the excess reagent are left over in this reaction?