1. Phosphorus burns in oxygen gas to produce phosphorus (V) oxide (P_4O_{10}).
   If 2.50 g P_4 is reacted with oxygen and produces 0.980 g of P_4O_{10}, what is the % yield?

   17.1 % yield

2. Calculate the mass of calcium carbonate that is produced when 45.00 g of Calcium Nitrate is reacted with 50.00 g of sodium carbonate. In addition, determine the mass of excess reactant that remains.

   27.45g $CaCO_3$

   20.94g Na_2CO_3

3. 14.00 ml of a 60.0 % KOH solution is reacted with sulfuric acid. Determine the mass of potassium sulfate that was produced. The density of the KOH solution is 1.32 g/ml.

   17.2g K_2SO_4

4. Magnesium Hydroxide is decomposed to create water and magnesium oxide. What mass of water is created when 225.0 g of magnesium hydroxide is heated?

   69.51g H_2O

5. Common pharmaceutical hydrogen peroxide, H_2O_2, is a 3.0% H_2O_2 solution. When H_2O_2 decomposes, water and oxygen gas are produced. What mass of water results from the reaction of 220.0 g of hydrogen peroxide solution?

   3.5g H_2O