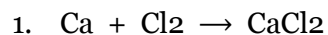Name: _____   Date: _____

Chemistry 11 - Percent Yield

1. Ca + Cl2 → CaCl2
In the above reaction, 1.00 mole of Ca reacts with an excess of Cl2.
Only 106 g of CaCl2 is produced. What is the percent yield?

2. N2 + 3H2 → 2NH3
In the above reaction, 0.60 mol of N2 reacts with an excess of H2.
Only 14.5 g of NH3 are produced. What is the percent yield?

3.   When 21.8 g of silver nitrate, AgNO3, are reacted with an excess of sodium chloride, 17.8 g
of silver chloride, AgCl, are formed. Calculate the percent yield of silver chloride.

4. When 5.44 g of copper are reacted with an excess of oxygen, 5.10 g of copper (II) oxide are
formed. Calculate the percent yield of copper (II) oxide.

5. In a chemical analysis to test the purity of a bottle of sodium bromide, a solution containing 1.17 g of sodium bromide was reacted with an excess of dimercury (I) acetate solution. The dry precipitate had a mass of 2.73 g. Calculate the percent yield for the precipitate. **Note that reaction is UNBALANCED!!**

$$NaBr_{(aq)} \quad + \quad Hg_2(CH_3COO)_{2(aq)} \quad \longrightarrow \quad Hg_2Br_{2(s)} \quad + \quad NaCH_3COO_{(aq)}$$
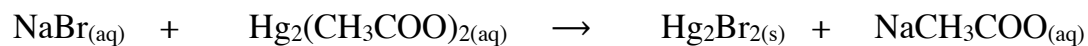
6. A solution containing 2.56 g of aluminum nitrate is mixed with a solution containing 1.02 g of ammonium sulphide. Determine the unreacted mass of the excess reagent and the mass of precipitate formed.