**Stoichiometry Worksheet**

1. If 20.0 g of zinc react with excess hydrochloric acid, how many grams of zinc chloride are produced?

Zn(s) + 2HCl(aq) → ZnCl2(aq) + H2(aq)

2. How many grams of chlorine gas must be reacted with excess sodium iodide if 10.0 g of sodium chloride is produced?

2NaI(aq) + Cl2(aq) → 2NaCl(aq) + I2(s)

3. How many grams of copper are required to replace 4.00 g of silver nitrate which is dissolved in water?

Cu(s) + 2AgNO3(aq) → Cu(NO3)2(aq) + 2Ag(s)

4. If excess sulfuric acid reacts with 30.0 g of sodium chloride, how many grams of hydrochloric acid are produced?

H2SO4(aq) + 2NaCl(aq) → Na2SO4(aq) + 2HCl(aq)

5. How many moles of hydrogen can be produced from 8.40 g of aluminum and excess sodium hydroxide? How many grams?

\_\_Al(s) + \_\_NaOH(aq) → \_\_Na3AlO3(aq) + \_\_H2(aq)

6. How many moles of calcium chloride would be necessary to prepare 94.0 g of calcium phosphate?

\_\_CaCl2(aq) + \_\_Na3PO4(aq) → \_\_Ca3(PO4)2(s) + \_\_NaCl(aq)

7. Calculate the number of grams of oxygen that could be produced by heating 9.70 g of potassium chlorate?

\_\_KClO3(s) → \_\_KCl(s) + \_\_O2(g)