CHEM 1100 Review Quiz

1. An object has mass 14.45 g and volume 10.0 cm3. Calculate the object’s density.

2. Name the following compounds

a. FeO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Mg3N2  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. CCl4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. CoPO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Calculate the number of moles of AgNO3 in 15.0 g of AgNO3

4. Calculate the mass in grams of 2.00 moles of N2O3

5. Calculate the mass of barium sulfate that will form when 10.0 g of barium chloride reacts completely in the following reaction:

 BaCl2 (aq) + Na2SO4 (aq) → 2 NaCl (aq) + BaSO4 (s)

6. 15.0 g of Fe(NO3)3 reacts with 15.0g KOH according to the following equation:

 Fe(NO3)3 (aq) + 3 KOH (aq) → Fe(OH)3 (s) + 3 KNO3 (aq)

a. Calculate the limiting reactant

b. Calculate the theoretical yield of Fe(OH)3

7. Calculate the molarity of 31.35 g of NaCl in 1.50 L of aqueous solution

8. Calculate the final concentration of a HCl solution prepared by diluting 100.0 mL of 12.1 M HCl to 250.0 mL.