**Make Up Quiz Review**  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Formula Mass, % Comp.**

**Empirical Formulas** Period\_\_\_\_\_

**OBJECTIVE TWO: FORMULA MASS**

1. Calculate the formula or molecular mass of the following compounds.

a. H2CO3 d. (NH4)3PO4

b. CaCl2 e. BiAsO4

1. C6H6

**OBJECTIVE THREE: MOLES**

1. 6.02 x 1023 is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_number.

2. If a single molecule of CO2 has a mass of 44 amu, then 6.02 x 1023 molecules have a mass of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ grams.

3. 6.02 x 1023 pins is one \_\_\_\_\_\_\_\_\_of pins.

4. One mole of molecules contains \_\_\_\_\_\_\_\_\_\_particles than/as one mole of atoms.

5. Convert:

1. 49 grams of H2SO4 to moles
2. 34 grams of NH3 to moles
3. What is the mass of 0.0250 moles of
4. Mg(OH)2
5. Na3PO4
6. How many moles are in 500.0 grams of
7. Ba(NO3)3

b. SnCl2

**OBJECTIVE FOUR: PERCENT COMPOSITION**

Calculate the percent composition for each element in the following compounds.

1. HCl 4. Ca3(PO4)2

2. NaOH 5. CCl4

1. NH4Cl

**OBJECTIVE FIVE EMPIRICAL AND MOLECULAR FORMULAS**

1. Molecular mass is a whole number multiple of the .

a. empirical formula mass b. hydride mass

c. amu d. percentage composition

1. Write the correct empirical formula next to the following compounds.

a. C6H6 c. C2H2

b. C2H6 d. H2O2

1. CH4
2. Find the empirical formulas for the following compounds.
3. 63.0 grams Rb and 5.90 grams O
4. 32.8% Cr and 67.2% Cl (chlorine)
5. 58.0% Rb, 9.50% N and 32.5% O
6. If the molecular mass of a substance is 70 grams/mole and its empirical formula is CH2, what is its molecular formula?