Name_____

Date_____Pd____

Empirical Formulas Worksheet, #1

Directions: Find the empirical formula and name for each of the following.

1. A compound is 24.7% Calcium, 1.2% Hydrogen, 14.8% Carbon, and 59.3% Oxygen. Write the empirical formula and name the compound.

2. A compound is 21.20% Nitrogen, 6.06% Hydrogen, 24.30% Sulfur, and 48.45% Oxygen. Write the empirical formula and name the compound.

3. A compound is 44.82% Potassium, 18.39% Sulfur, and 36.79% Oxygen. Write the empirical formula and name the compound.

4. A compound is 52.0% Zinc, 9.6% Carbon, and 38.4% Oxygen. Calculate the empirical formula of the compound.

5. A compound is 92.2% Carbon and 7.76% Hydrogen. The formula mass of the compound is 78.1 g. Calculate the empirical formula and molecular formula of the compound.

6. A compound is 43.7% Phosphorus and 56.3% Oxygen. The formula mass of the compound is 284 g. Calculate the empirical formula and molecular formula of the compound.

7. In an experiment, it was found that 11.775 g of Sn combined with 3.180 g of O. Write the empirical formula and name the compound that is formed.

8. A compound contains 21.6% Na, 33.3% Cl, and 45.1% O. Write the empirical formula and name the compound that is formed.

9. A compound is 19.3% Na, 26.9% S, and 53.8% O. Its formula mass is 238 g. What is its molecular formula?

10. An experiment uses a catalyst that is 23.3% Co, 25.3% Mo, and 51.4% Cl. What is the empirical formula of the compound?