Empirical Formulas:

1. A compound is formed from 0.1010 g hydrogen and 2.004 g calcium. What is the empirical formula?

2. What is the empirical formula for a compound with 1.6 g calcium and some oxygen in a 2.243 g sample?

3. What is the empirical formula for a compound containing phosphorus and oxygen when a 3.299 g sample of the compound contains 1.859 g phosphorus?

4. A 0.6409 g sample of a compound containing nitrogen and hydrogen contains 0.5309 g of nitrogen. determine the empirical formula.

5. A compound is 46 % sulfur and 54 % fluorine, what is the empirical formula?

Empirical and Molecular Formulas Worksheet

Objectives:
• be able to calculate empirical and molecular formulas

Empirical Formula
1) What is the empirical formula of a compound that contains 0.783g of Carbon, 0.196g of Hydrogen and 0.521g of Oxygen?

2) What is empirical formula of a compound which consists of 89.14% Au and 10.80% of O?

3) What is empirical formula if compound consists of 21.2%N, 6.1%H, 24.2%S and 48.5%O?

Molecular Formula
4) Empirical formula of a substance is CH_2O. Molar mass is 180. What is the molecular formula?

5) Sample (3.585g) contains 1.388g of C, 0.345g of H, 1.850g O and its molar mass is 62g. What is molecular formula of this substance?