Chemistry   Name _____
MORE PRACTICE
Finding Empirical and Molecular Formulas

Instructions: Read the following problems and complete the correct calculations. SHOW ALL WORK.

1) A compound contains 54.5% C, 36.3% O, and 9.2% H by mass. The molar mass of the compound is 88 grams.

      a) What is the empirical formula?

      b) What is the molecular formula?

2) A compound that is composed of carbon, hydrogen, and nitrogen contains 52.1% C, 17.5% H, and 30.4% N by mass. The molar mass of the compound is 46 grams.

      a) What is the empirical formula?

b) What is the molecular formula?

3) A compound contains 75.46% carbon, 4.43% hydrogen, and 20.11% oxygen by mass. It has a molar mass of 318.31 g/mol.
      a) What is the empirical formula?

      b) What is the molecular formula?

4) A compound contains 68.4% chromium and 31.6% oxygen. It has a molar mass of 152 g/mol.
      a) What is the empirical formula?

      b) What is the molecular formula?