Chemistry CP Name:_____

Percent composition, Empirical and Molecular Formula Quiz

Find the percent composition of all of the elements in the following compounds (1 pt per line)

1) $Al_2(SO_3)_3$

Al: _____

S: _____

O: _____

2) NaBr

Na: _____

Br: _____

3) $FeCO_3$

Fe: _____

C: _____

O: _____

4) CO_2

C: _____

O: _____

Practice Quiz

Chemistry CP Name:_____
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Solve the following problems: (10 points each)

5) What is the empirical formula of a compound that contains 0.1577 grams of aluminum, 0.2811 grams of sulfur, and 0.5612 grams of oxygen?

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 342 grams/mole, what's the molecular formula?

6) What is the empirical formula of a compound that contains 2.255 g phosphorus and 7.745 g chlorine?

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 137 grams/mole, what's the molecular formula?

Practice Quiz

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7) If a compound contains 32.13% aluminum, and 67.87% fluorine:

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 84 grams/mole, what's the molecular formula?

8) If a compound contains 46.91% sodium, 24.51 % carbon and 28.59% nitrogen:

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 50 grams/mole, what's the molecular formula?

Practice Quiz

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9) If a compound contains 37.49% carbon, 12.58% hydrogen, and 49.93% oxygen:

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 192 grams/mole, what's the molecular formula?

10) If a compound contains 92.26% carbon and 7.74% hydrogen:

   a. What is the empirical formula of the compound?

   b. If the molar mass of the compound is approximately 78 grams/mole, what's the molecular formula?

Practice Quiz