Chemistry I   Name _____

                                               Date _____ Per _____

**Worksheet # C43: Percent Composition,
Empirical Formulas, and Molecular Formulas**

1. What is the percent composition of SO_2?   S = _____ %

                                                       O = _____ %

2. What is the percent composition of calcium phosphate?   Ca = _____ %

                                                            P = _____ %

                                                            0 = _____ %

3. Determine the empirical formula of a compound that is 52.11% carbon, 13.14%
hydrogen, and 34.75% oxygen.

                                               _____

4. Since iron can be either Fe^{+2} or Fe^{+3}, iron chloride can be either $FeCl_2$ or $FeCl_3$. If a
certain red compound is 34.43% iron and 65.57% chlorine, then which is it: $FeCl_2$ or
$FeCl_3$?

                                               _____

5. What is the empirical formula of a compound that is 34.6% gallium, 17.8% carbon,
and 47.6% oxygen?

                                               _____

6. What is the percent composition of potassium chlorate? K = _____ %
   (This is the white fireworks powder, $KClO_3$.)

   Cl = _____ %

   0 = _____ %

7. What is the empirical formula of a compound that is 21.43% cobalt, 37.83% chromium, and 40.74% oxygen?

   _____

8. The beautiful green mineral malachite is 57.48% copper, 5.43% carbon, 36.18% oxygen, and 0.913% hydrogen. What is its empirical formula?

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