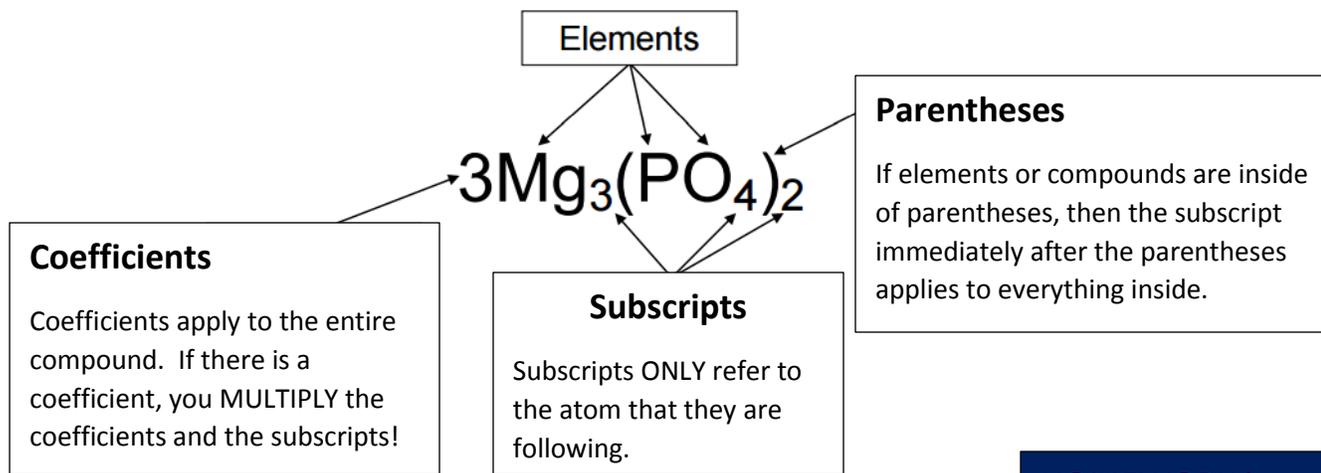


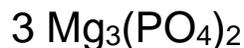
Some chemical formulas can be quite complex, and have many different parts:



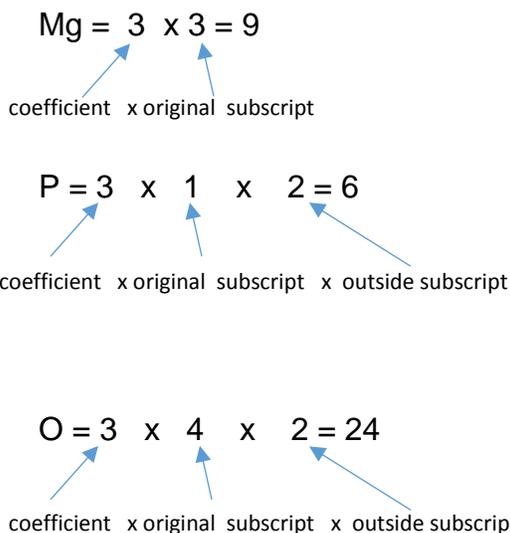
**HOMEWORK** is located on page 3 of this document!

The steps you wrote are the steps you use to solve problems with subscripts, parentheses, and coefficients. Here is how to calculate how many atoms are in the compound above.

Step 1: Write the chemical formula.



Step 2: Separate the elements with their subscripts, parentheses, and coefficients.



Step 3: Add

$$9 + 6 + 24 = 39 \text{ atoms in three molecules of magnesium phosphate}$$

## MORE NOTES:

**Example 9:** 10 molecules of Aleve

Step 1: 10 C<sub>14</sub>H<sub>13</sub>NaO<sub>3</sub>

Step 2: C = 10 x 14 = 140

H = 10 x 13 = 130

Na = 10 x 1 = 10

O = 10 x 3 = 30

Step 3: 310 atoms in ten molecules of Aleve

**Example 10:** 15 molecules of beryllium hydroxide

Step 1: 15 Be(OH)<sub>2</sub>

Step 2: Be = 15 x 1 = 15

O = 15 x 1 x 2 = 30

H = 15 x 1 x 2 = 30

Step 3: 75 atoms in fifteen molecules of beryllium hydroxide

**Practice Problems:** Complete the nine practice problems in your notes. Yes, you must look up the chemical name. Yes, you must show me all THREE steps.

**Calculate the number of atoms in each compound below.  
DO NOT squish your answer by each compound!**

12 SrCl<sub>2</sub>

6 NH<sub>3</sub>

3 ZnCl<sub>2</sub>

2 AgNO<sub>3</sub>

7 C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>5</sub>

9 C<sub>3</sub>H<sub>7</sub>OH

22 NaClO

15 C<sub>28</sub>H<sub>30</sub>O<sub>4</sub>

7 (NH<sub>2</sub>)<sub>2</sub>CO

**HOMEWORK. Calculate how many TOTAL elements are in each compound below.**

Calcium citrate = 5 molecules of calcium citrate



Iron II chromite = 20 molecules of iron II chromite



Gallium acetate = 215 molecules of gallium acetate



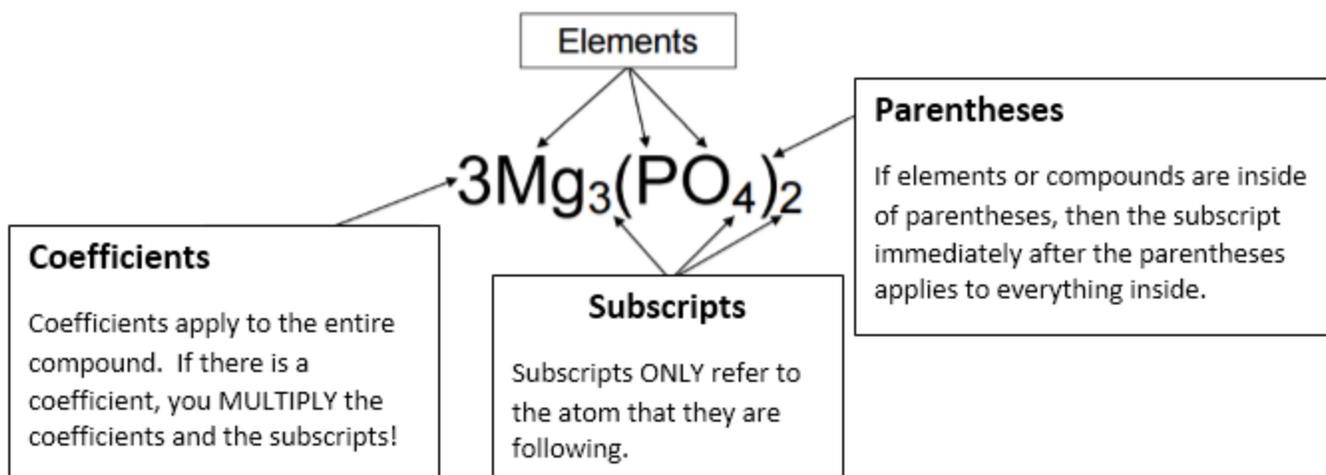
Iron III dichromate = 10 molecules of iron III dichromate



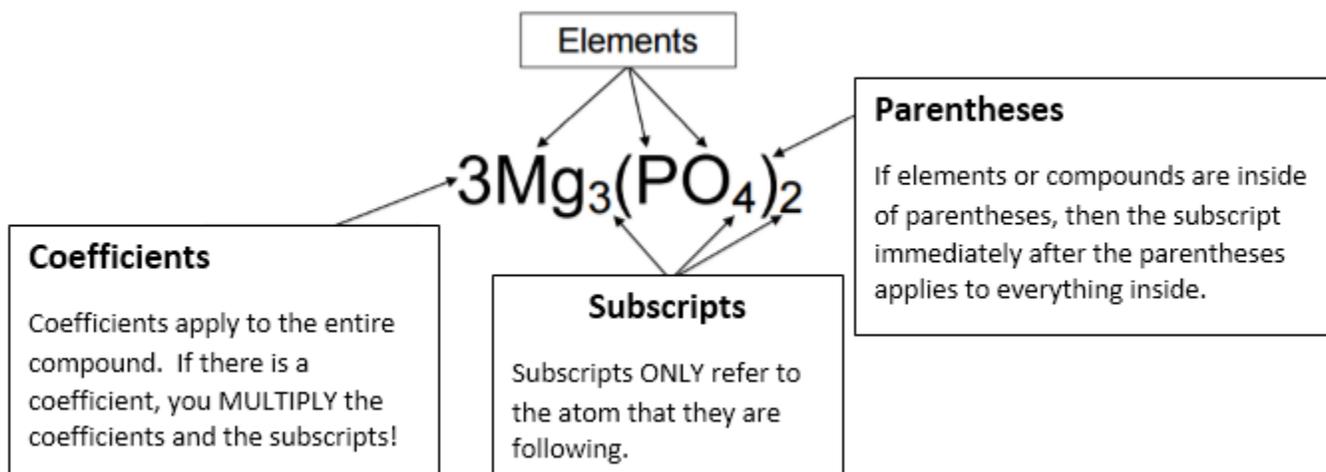
Maitotoxin = 3,250 molecules of maitotoxin



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