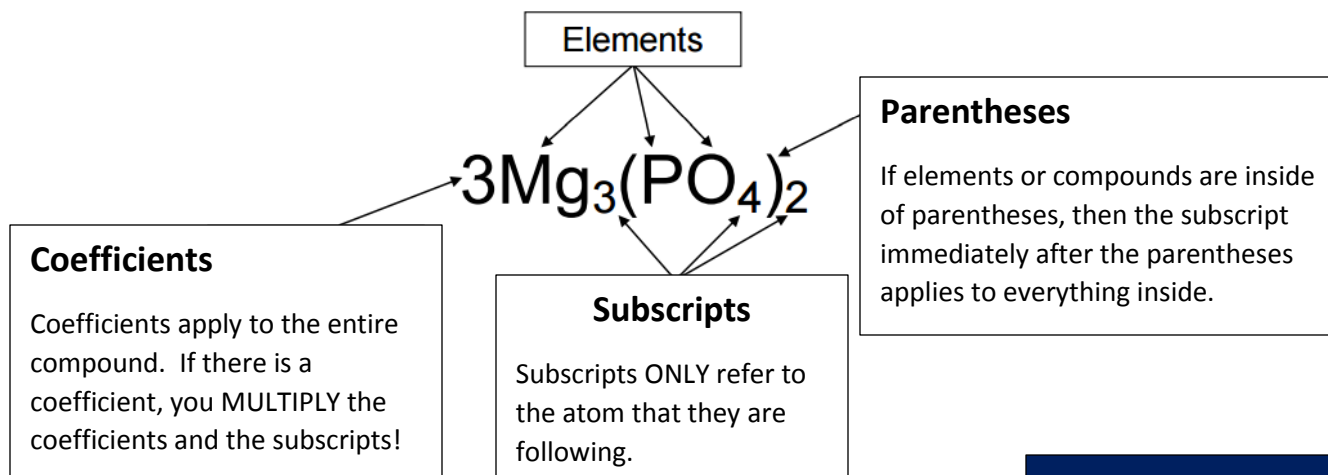


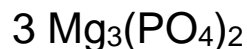
Some chemical formulas can be quite complex, and have many different parts:



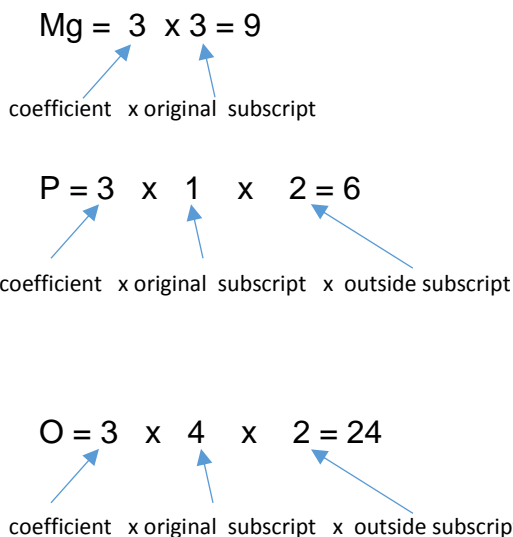
HOMEWORK is located on page 3 of this document!

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 $C_{14}H_{13}NaO_3$

Step 2: C = $10 \times 14 = 140$

H = $10 \times 13 = 130$

Na = $10 \times 1 = 10$

O = $10 \times 3 = 30$

Step 3: 310 atoms in ten molecules of Aleve

Example 10: 15 molecules of beryllium hydroxide

Step 1: 15 $Be(OH)_2$

Step 2: Be = $15 \times 1 = 15$

O = $15 \times 1 \times 2 = 30$

H = $15 \times 1 \times 2 = 30$

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 $SrCl_2$

6 NH_3

3 $ZnCl_2$

2 $AgNO_3$

7 $C_{14}H_{18}N_2O_5$

9 C_3H_7OH

22 $NaClO$

15 $C_{28}H_{30}O_4$

7 $(NH_2)_2CO$

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

Calcium citrate = 5 molecules of calcium citrate



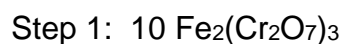
Iron II chromite = 20 molecules of iron II chromite



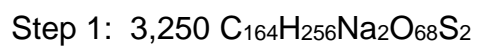
Gallium acetate = 215 molecules of gallium acetate



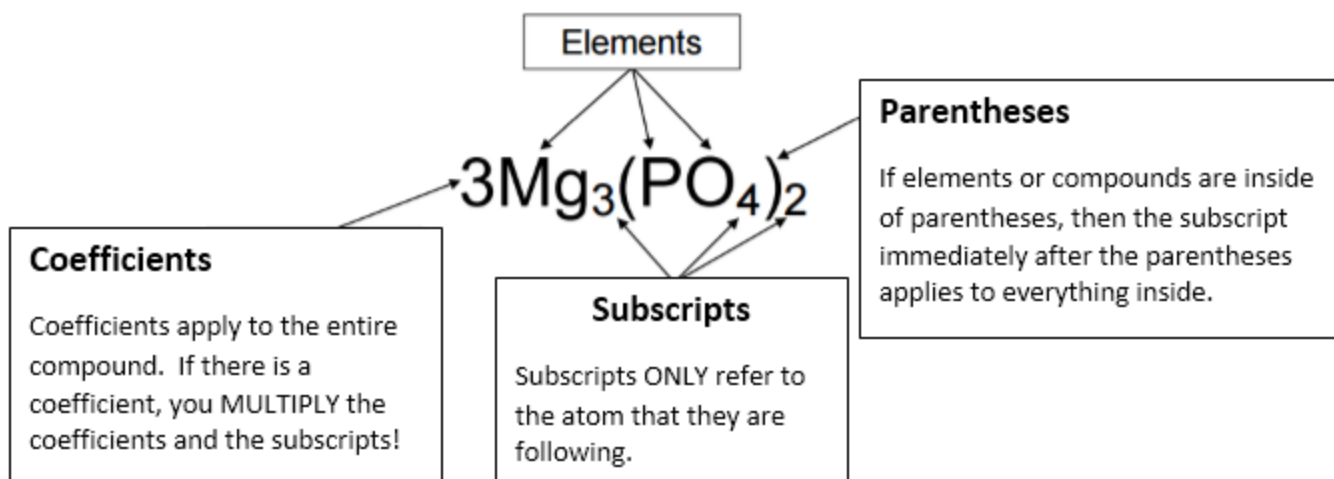
Iron III dichromate = 10 molecules of iron III dichromate



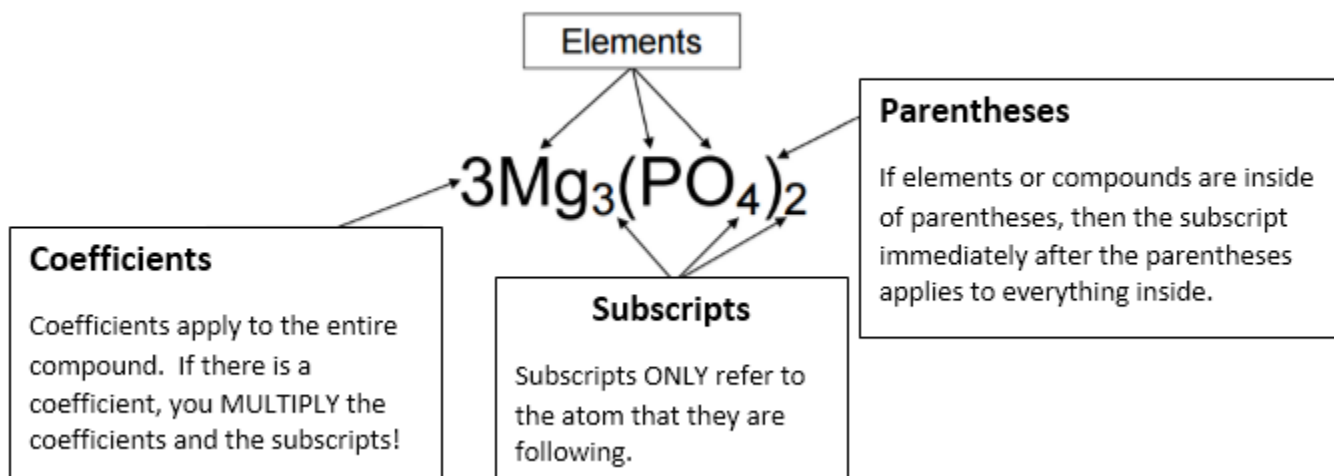
Maitotoxin = 3,250 molecules of maitotoxin



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



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