# **Decoding Chemical Formulas**

## Example:

# $\rm CO_2$

			Total
Elements found in formula	Carbon		2
Number of atoms of element	1		

## $H_2O$

		Total
Elements found in formula		
Number of atoms of element		

# $Zn(NO_3)_2$

Note: Multiply the subscript outside of the parentheses by everything inside of the parentheses.

		Total
Elements found in formula	Nitrogen	3
Number of atoms of element	2	9

## Ca(OH)<sub>2</sub>

		Total
Elements found in formula		
Number of atoms of element		

## Coefficients

### Example:

2CO<sub>2</sub>

			Total
Elements found in formula	Carbon		
Number of atoms of element		4	 6

What is the mathematical relationship between coefficients and subscripts?

Write a mathematical expression to show the relationship between the coefficient and subscripts.

#### $4H_2O$

		Total
Elements found in formula		
Number of atoms of element		

What is the mathematical relationship between coefficients and subscripts?

Write a mathematical expression to show the relationship between the coefficient and subscripts.