

Chapter 5 - Atom Count in Chemical Formulas

Name _____

Class Period _____

Date _____

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Things to Remember...

- Element symbols have only one capital letter.
 - If two capital letters are side by side they both represent one element each.
- For example, the chemical formula **KF** contains,
1 atom of **potassium** and
1 atom of **fluorine**.
- Everything inside a set of parentheses is multiplied by the subscript outside the parentheses.

Example 1: The chemical formula **Ca(OH)₂** contains
1 atom of **calcium**,
2 atoms of **oxygen** and
2 atoms of **hydrogen**.

Example 2: The chemical formula **Pb(NO₃)₂** contains
1 atom of **lead**,
2 atoms of **nitrogen** and
6 atoms of **oxygen**.

Directions: *Fill in the last box with the name and number of each kind of atom in the formula.*

Sample:

Methyl chloride	Refrigerant	CH ₃ Cl	Carbon – 1 Hydrogen – 3 Chlorine - 1
Tetrachloroethane	Dry cleaning	C ₂ H ₂ Cl ₄	
Freon™ (dichlorodifluoromethane)	Refrigerant	CCl ₂ F ₂	
Glucose	Blood sugar.	C ₆ H ₁₂ O ₆	
Sucrose	Table sugar.	C ₁₂ H ₂₂ O ₁₁	

Please continue on the other side.

Aluminum hydroxide	Antacid; deoderant	Al(OH)_3	
Sulfuric acid	Industrial chemical	H_2SO_4	
Asbestos	Banned insulator	$\text{H}_4\text{Mg}_3\text{Si}_2\text{O}_9$	
Aspirin	Pain reliever	$\text{C}_9\text{H}_8\text{O}_4$	
Calcium dihydrogen phosphate	Type of fertilizer	$\text{Ca(H}_2\text{PO}_4)_2$	
Pyrite	Fool's gold	FeS_2	
Cellulose	Wood, paper	$\text{C}_6\text{H}_7\text{O}_2(\text{OH})_3$	
Ethyl alcohol	Fuel, medicine, alcoholic beverages	$\text{C}_2\text{H}_5\text{OH}$	
Calcium hydroxide	Lime	Ca(OH)_2	