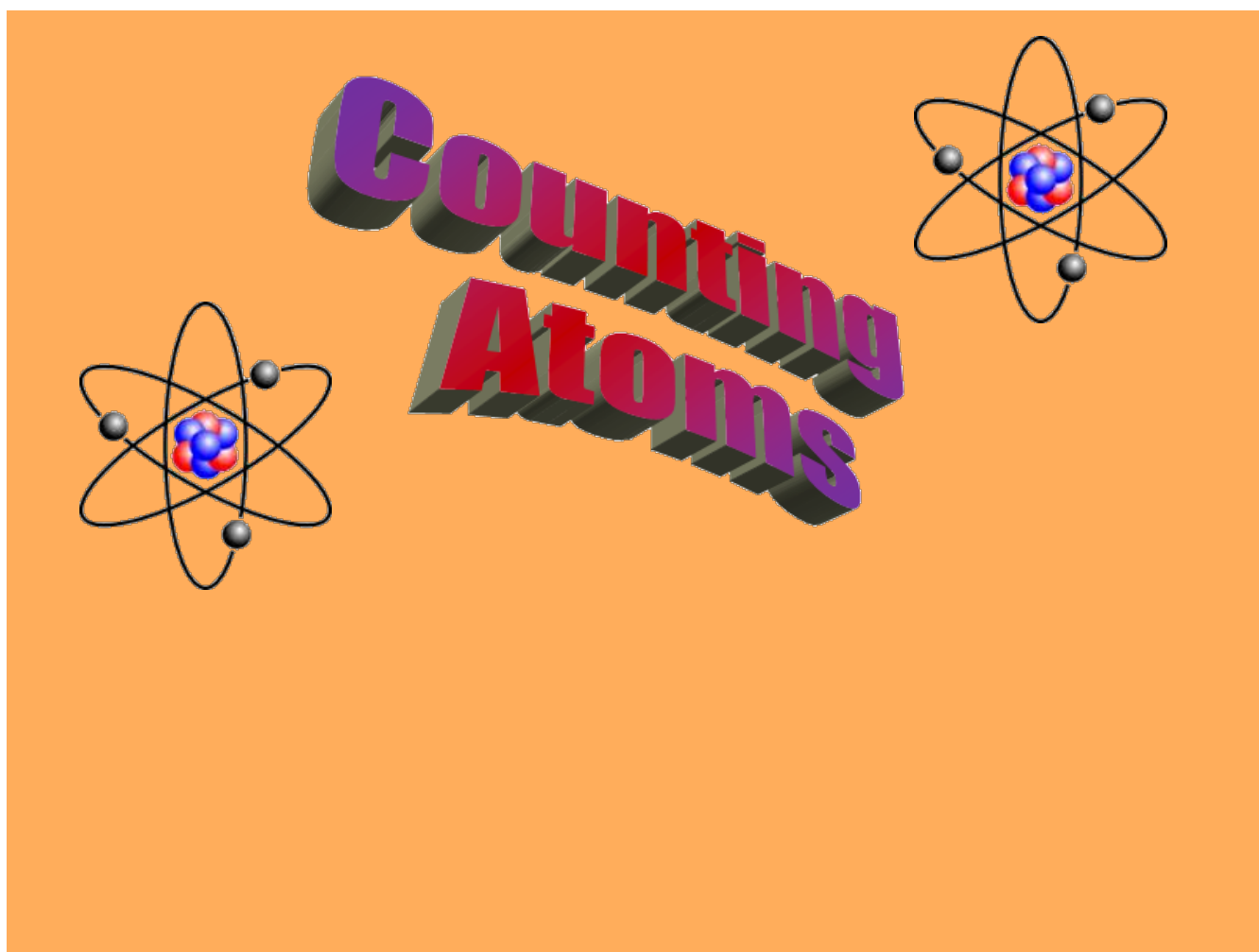


Solutions to Yesterday's Book work

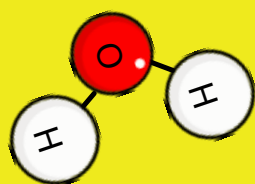
Page 47 #1 to #4



Hand out last page of notes  
from yesterday



## Atoms and Molecules Page 46



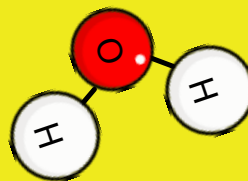
### Recall

**Atom:** a particle in an element.

Example: In water there are two hydrogen atoms and one oxygen atom.

**Molecule:** a combination of two or more atoms.

Molecules can be made up of all the same kind of atom like O<sub>2</sub> or different atoms like H<sub>2</sub>O.



## Naming Elements Assignment

1) Using your periodic table, write the element's name that is associated with the symbols.

a) S Sulfur

b) F Fluorine

c) Al Aluminum

d) Cu Copper

e) Br Bromine

f) Na Sodium

g) H Hydrogen

h) Fe Iron

i) O Oxygen

j) Li Lithium

2) Given the following elements name's write the symbol that is associated with them.

a) Calcium Ca

b) Carbon C

c) Nickel Ni

d) Neon Ne

e) Silver Ag

f) Chlorine Cl

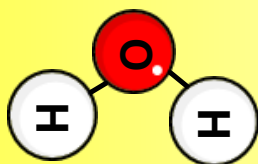
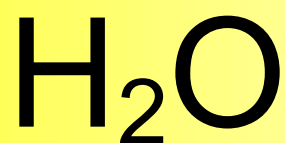
g) Gold Au

h) Magnesium Mg

i) Nitrogen N

j) Potassium K

LETS VISUALIZE SOME MOLECULES AND COMPOUNDS



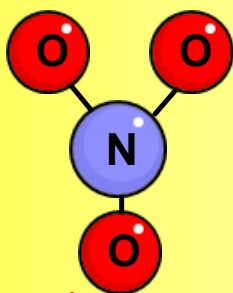
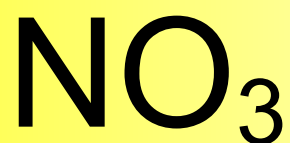
This Molecule contains:

Atoms of Hydrogen : 2  
Atoms of Oxygen : 1

---

Total atoms: 3

LETS VISUALIZE SOME MOLECULES AND COMPOUNDS



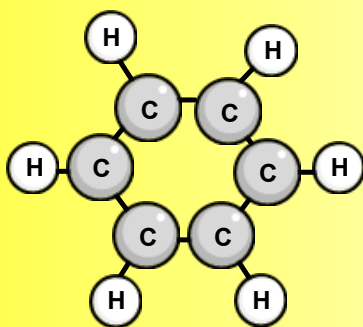
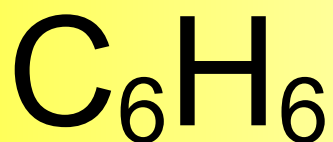
This Molecule contains:

Atoms of Nitrogen: 1  
Atoms of Oxygen: 3

---

Total atoms: 4

## LETS VISUALIZE SOME MOLECULES AND COMPOUNDS



This Molecule contains:

Atoms of Carbon: 6  
Atoms of Hydrogen: 6

Total atoms

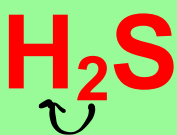
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## RULES FOR COUNTING ATOMS

1) **SUBSCRIPTS** only refer to the atom that they are **BEHIND**.

Example:



Contains:

Atoms of hydrogen = 2  
Atoms of Sulfur = 1

---

Total atoms: 3



## RULES FOR COUNTING ATOMS

**2) COEFFICIENTS** apply to the entire compound. You **MULTIPLY** the coefficients and **SUBSCRIPTS**.

Example: **2 H<sub>2</sub>S**

IF THERE ISN'T A SUBSCRIPT BEHIND AN ELEMENT, ASSUME THERE IS ONLY ONE ATOM OF THAT ELEMENT!

Contains:

Atoms of Hydrogen:  $2 \times 2 = 4$   
Atoms of Sulfur:  $1 \times 2 = 2$

—  
Total atoms: **6**

## RULES FOR COUNTING ATOMS

3) If elements or compounds are inside of **BRACKETS**, then the **SUBSCRIPT** behind the parentheses applies to everything inside.



Example:

Atoms of Barium: 1

Atoms of Oxygen: 2

Atoms of Hydrogen: 2

---

Total Atoms = 5

LET'S PRACTICE!



Atoms of Magnesium: 1

Atoms of Chlorine: 2

---

Total of Atoms = 3

LET'S PRACTICE!



Atoms of Aluminum: 2  
Atoms of Sulfur: 3

---

Total of Atoms = 5

LET'S PRACTICE!



Atoms of Hydrogen: 2

Atoms of Sulfur: 1

Atoms of Oxygen: 4

---

Total of Atoms = 7

LET'S PRACTICE!



Atoms of Carbon: 1

Atoms of Hydrogen: 4

Atoms of Oxygen: 1

---

Total of Atoms = 6

LET'S PRACTICE!

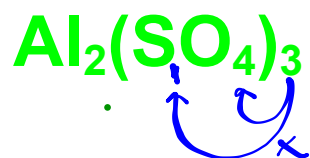


Atoms of Calcium: 3  
Atoms of Phosphorus: 2  
Atoms of Oxygen: 8

---

Total of Atoms = 13

# LET'S PRACTICE!



Atoms of Aluminum: 2

Atoms of Sulfur: 3

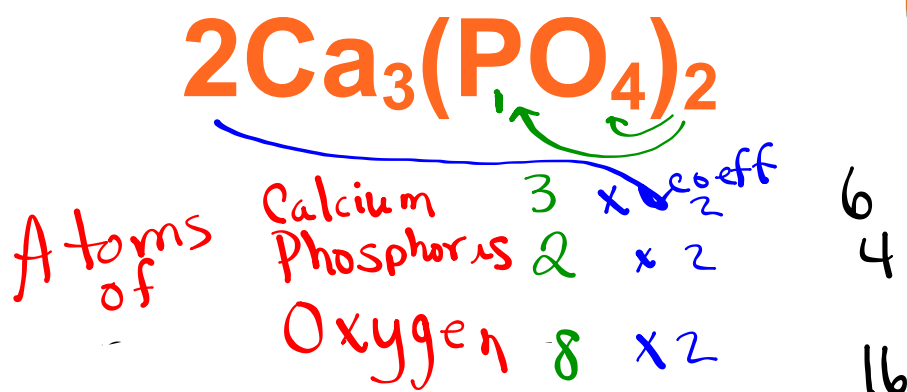
Atoms of Oxygen: 12

---

Total of Atoms = 17



## LET'S PRACTICE!




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**Total of Atoms = 26**

---

**Total of Atoms = 26**

# Assignment Time



## Attachments

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Science 9 Day 8.5 - Solutions to Page 47 (Last night HW).notebook

Counting Atoms Assingment.notebook