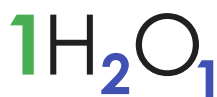
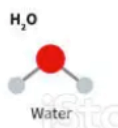


The **atomic composition** of a **molecule** describes the number and type of atoms in the molecule.

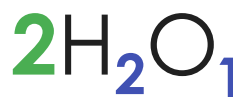
- ▶ A **molecule** consists of two or more atoms that may be the same or different.
- ▶ The **coefficient** is the amount of molecules.
- ▶ The **subscript** is the amount of atoms.



water



2 atoms of hydrogen
1 atom of oxygen



water



4 atoms of hydrogen
2 atoms of oxygen

CFU

How many molecules of ammonia?
Explain.



How many atoms of nitrogen in ammonia?
Explain.



How many molecules of ammonia?
Explain.



1 Describe the atomic composition of the molecule.

2 Read the atomic composition of the molecule.

1. O_3

ozone

The atomic composition of

____ molecule of ozone is ____ oxygen
atoms.**2. N_2**

nitrogen

The atomic composition of

____ molecule of nitrogen is ____ nitrogen
atoms.**3. $2CH_4$**

methane

The atomic composition of

____ molecules of methane is ____
carbon atoms and ____ hydrogen atoms.**4. $3CO_2$**

carbon dioxide

The atomic composition of

____ molecules of carbon dioxide is ____
carbon atoms and ____ oxygen atoms.**5. $2C_6H_{12}O_6$**

glucose

The atomic composition of

____ molecules of glucose is ____ carbon
atoms, ____ hydrogen atoms, and ____
oxygen atoms.**6. $4CaCO_3$**

calcium carbonate

The atomic composition of

____ molecules of calcium carbonate is
____ calcium atoms, ____ carbon atoms,
and ____ oxygen atoms.**7. $(NH_4)_2SO_4$**

ammonium sulfate

The atomic composition of

____ molecule of ammonium sulfate is
____ nitrogen atoms, ____ hydrogen
atoms, ____ sulfur atom, and ____ oxygen
atoms.**8. $Ca(OH)_2$**

calcium hydroxide

The atomic composition of

____ molecule of calcium hydroxide is
____ calcium atom, ____ oxygen atoms,
and ____ hydrogen atoms.

Skill Closure

- 1 Describe the atomic composition of the molecule.
- 2 Read the atomic composition of the molecule.

1. NaCl

sodium chloride

The atomic composition of _____ molecule of sodium chloride is _____ sodium atom and _____ chlorine atom.

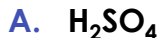
2. $4\text{H}_2\text{O}_2$

hydrogen peroxide

The atomic composition of _____ molecules of hydrogen peroxide is _____ hydrogen atoms and _____ oxygen atoms.

Concept Closure

Tristan says that the molecule that has 4 oxygen atoms is C. Do you agree with him? Correct and explain.



Summary Closure

What did you learn today about describing the atomic composition of molecules?

Word Bank

amount
type
atom
coefficient
subscript
molecule