Name: _____ Section: _____

What's the Difference?

Atoms, Molecules, Elements and Compounds

Directions: Complete the section by writing "Atom," "Molecule," "Element," or "Compound" on the line.

1. A(n)_____ is the smallest particle of a substance that is made up of two or more atoms.
2. A(n)_____ is the smallest particle of any pure element.
3. A(n)_____ is a substance that cannot be broken down by simple chemical and physical processes.
4. A(n)_____ is the particle known as the building block of matter.
5. A(n)_____ is a chemical substance that is made up of two or more different kinds of atoms bonded together.

Directions: Look at each picture below. Each circle represents an atom. If they are touching, they are chemically combined. Each element is represented by a pattern. Write the number of atoms, molecules, elements and compounds for each example on the lines below. The first example has been done for you.

1.

atom 3
molecule 1
element 2
compound 1

2.

atom _____
molecule _____
element _____
compound _____

3.

atom _____
molecule _____
element _____
compound _____

4.

atom _____
molecule _____
element _____
compound _____

5.

atom _____
molecule _____
element _____
compound _____

6.

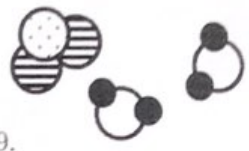
atom _____
molecule _____
element _____
compound _____

7.

atom _____
molecule _____
element _____
compound _____

8.

atom _____
molecule _____
element _____
compound _____



9.

atom _____
molecule _____
element _____
compound _____

10.

atom _____
molecule _____
element _____
compound _____

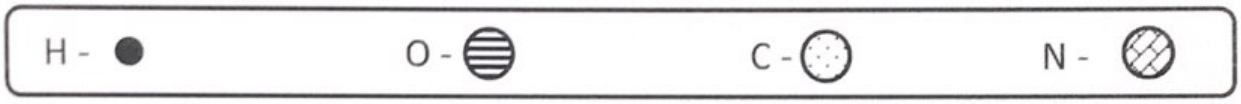
11.

atom _____
molecule _____
element _____
compound _____

12.

atom _____
molecule _____
element _____
compound _____

Directions: Use the key to help you choose the correct chemical formula from the list below for each molecule. The first example has been done for you.



1.

NH_3

2.

_____

3.

_____

4.

_____

5.

_____

6.

_____

7.

_____

8.

_____

Chemical Formulas

H_2O CO_2 CO H_2 CH_4 NH_3 O_3 NO_2