

Name _____

Hour _____

Section 2-1/2-2 Review

A. Use the vocabulary terms in the following list, fill in the blanks in the statements below.

atom
covalent bonding
element
mass number
nucleus
solution

atomic number
colloid
ionic bonding
mixture
pH
suspension

compound
electron
isotope
neutron
proton

1. A substance that cannot be broken down into other substances by ordinary chemical means is a(n) _____.
2. A substance formed by the chemical combination of two or more elements is a(n) _____.
3. The basic unit of structure of all elements is the _____.
4. Atoms are made up of three types of particles: _____,
_____, and _____.
5. The dense central portion of the atom is the _____.
6. The number of protons in the nucleus of its atom is the _____
of an element.
7. The number of protons plus the number of neutrons in the nucleus of an atom is its
_____.
8. Different varieties of the same element having different numbers of neutrons in the
nuclei are called _____.
9. Chemical bonding in which there is a transfer of electrons from one atom to another
is _____.
10. Chemical bonding in which there is a sharing of electrons between atoms is
_____.
11. Measurement of the hydrogen ion concentration of a solution may be given in terms
of _____.

12. A purely physical association of substances is a _____.

13. Three types of mixtures are _____, _____, and _____.

B. If the statement is true, write **TRUE** in the space at the left. If the statement is false, make it true by changing the underlined word(s).

_____ 1. Compounds are the pure substances that are the building blocks of matter.

_____ 2. There are 92 naturally occurring elements.

_____ 3. The mass of an atom is concentrated in the neutron.

_____ 4. An electron has a positive charge.

_____ 5. The second energy level can hold up to two electrons.

_____ 6. A substance in which two or more different elements are chemically combined is called a compound.

_____ 7. Chemical bonding in which electrons are shared is called ionic.

_____ 8. Atoms that carry positive or negative charges are known as solids.

_____ 9. Particles are likely to be farthest apart in a liquid.

_____ 10. The freezing of water is a physical change.

_____ 11. In a mixture, there is no bonding of atoms.

_____ 12. A solute dissolves in a solvent.

_____ 13. Adding starch to water and stirring will form a solution.

_____ 14. Cytoplasm is an example of a colloidal suspension.

_____ 15. A solution with fewer hydroxide ions than hydrogen ions is a base.

C. Reviewing Key Concepts.

1. The nucleus, the center of the atom, is made up of _____ and _____.

2. The negatively charged particles in atoms are called_____.
3. Different isotopes of the same element have different numbers of _____.
4. In a(an)_____bond, electrons are transferred from one atom to another.

D. Matching

- a. polarity b. acidic c. basic

- _____1. unequal sharing of electrons
- _____2. lemon juice, pH 1.5
- _____3. lower concentrations of H^+ ions than pure water
- _____4. ammonia, pH 11.5
- _____5. a slight negative charge at one end of a molecule, a slight positive charge at the other end
- _____6. pH values that are below 7
- _____7. alkaline solutions

E. Short Answer

1. Describe the two main types of chemical bonds that are found in compounds.
2. Explain how an atom becomes an ion.
3. What causes polarity in a water molecule?
4. What determines whether a solution is acidic or basic?

