

Prep for Basic Chemistry: Competency 4 Practice

- Matter that has neither a defined shape nor volume is a _____.
 A gas
 B solid
 C liquid
- What is the definition of matter?
 A The measure of the weight of an object in three-dimensional space.
 B The smallest unit of an element.
 C Anything that has mass and occupies space.
 D Measurement of Earth's gravitational force on a mass.
- Which of the following observations in our daily life is an example of a physical change?
 A When milk is not refrigerated, it becomes sour.
 B When sugar is mixed with water, it dissolves.
 C Vinegar causes baking soda to fizz.
 D When water is boiled, it vaporizes.
- Both liquids and gases have permanent shapes.
 A True
 B False
- Gases have neither a defined volume nor shape.
 A False
 B True
- Solids have a defined volume and shape.
 A True
 B False
- Which of the following is a physical property of the acid in vinegar?
 A its clear color
 B its ability to be neutralized by sodium hydroxide
 C its ability to dissolve in water
 D its ability to fit into whatever it's poured into
- A pure substance is analyzed and found to contain only carbon. This substance is most likely a(n) _____.
 A mixture
 B element
 C compound
- atom
 A the smallest unit of an element with the chemical properties of the element
 B a substance that is made up of two or more elements chemically joined together
 C always has the same number of protons and neutrons
 D a chemical substance formed as a result of a chemical reaction

10. compound

- A. A physical property of matter that can be produced by atoms.
- B. A substance that is made up of two or more elements chemically joined together.

11. What is an element?

- A. A pure substance
- B. Made of only one kind of atom
- C. None of the above
- D. Both A and B

12. What is a molecule?

- A. A group of different kinds of atoms linked together
- B. A group of the same kind of atoms linked together
- C. A group of isotopes linked together

13. Write the name or symbol:

- a. Au _____
- b. Iron _____
- c. Lead _____
- d. Hg _____
- e. K _____
- f. Ag _____
- g. Sodium _____
- h. Sn _____
- i. Calcium _____