

1- G11 Chemistry, Q1-W1- Test#1

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. A physical property of zinc metal is _____.
a. its color
b. whether it burns
c. how it reacts with nitrogen gas
d. whether it changes when placed into acid
- _____ 2. An example of a pure substance in everyday life is _____.
a. pond water
b. sugar
c. a cola drink
d. concrete
- _____ 3. The density of a material depends on _____.
a. its mass only
b. its volume only
c. its mass and volume
d. its weight
- _____ 4. Matter that is large enough to be seen is _____.
a. macroscopic
b. massive
c. a scientific model
d. submicroscopic
- _____ 5. Water and hydrogen peroxide are both composed of atoms of hydrogen and oxygen. The differences lie in the _____ arrangement of the atoms.
a. behavioral
b. composed
c. macroscopic
d. submicroscopic
- _____ 6. Classification based on measurements is said to be _____.
a. composed
b. observed
c. qualitative
d. quantitative
- _____ 7. Gold melts at 1064°C. Melting point is a _____.
a. chemical change
b. chemical property
c. physical change
d. physical property
- _____ 8. Sugar, which is a substance, can be broken down into carbon, oxygen, and hydrogen. Sugar is a(n) _____.
a. compound
b. element
c. mixture
d. solution
- _____ 9. Which of the following has the greatest density?
a. a rock
b. oxygen
c. oil
d. ice
- _____ 10. If 14 atoms of carbon react with 28 atoms of oxygen to form carbon dioxide, how many atoms are contained in the carbon dioxide that is produced?
a. 14
b. 21
c. 28
d. 42

Matching

Match each item with the correct statement below.

- | | |
|----------------------|--------------------------------|
| a. alloy | h. law of conservation of mass |
| b. aqueous solutions | i. mass |
| c. chemical property | j. matter |
| d. compound | k. physical change |
| e. energy | l. properties |
| f. exothermic | m. quantitative |
| g. formula | n. solute |

- ____ 11. The type of change in which the identity of substances does not change.
- ____ 12. Solutions in which water is the solvent.
- ____ 13. Any chemical reaction that gives off energy.
- ____ 14. An observation that makes use of measurement.
- ____ 15. The material that is dissolved in a solution.

Problem

Below are listed changes that can be observed in everyday life. Tell whether it is a physical change or a chemical change.

- | | | |
|---|-------------|-------------|
| 16. an icicle melting | A- Physical | B- Chemical |
| 17. magnetizing a piece of steel | A- Physical | B- Chemical |
| 18. rubbing alcohol evaporating from the skin | A- Physical | B- Chemical |

The lists give the density of selected substances. Answer the following questions.

Substance	Density (g/mL)
water (at 4.0°C)	1.000
hydrogen	0.00090
carbon dioxide	XXX
gasoline	0.68
copper	8.89
silver	10.5
mercury	13.595
tungsten	19.3

19. Which of the substances listed has the greatest density? the lowest density?

	Greatest	Lowest
A	tungsten	hydrogen
B	tungsten	gasoline
C	silver	carbon dioxide
D	silver	water

20. To complete the list, calculate the density for carbon dioxide if 250.0 mL of the gas has a mass of 0.4997 g.

A- The density is 0.001999 g/mL.

A- The density is 1.1 g/mL.

A- The density is 1.4 g/mL.

A- The density is 1.6 g/mL.