InterActions Unit 5 Chapter 1 Sample Quiz

See the Scientists' Consensus Sheets for assistance.

1. Which of the following is a chemical property of a substance?
    a. color
    b. texture
    c. flammable (burns)
    d. shape

2. During a chemical interaction
    a. a new substance with different properties may appear
    b. a substance may disappear
    c. a new substance in a different phase may appear (at room temperature)
    d. All of the above

3. Which property is the most useful in identifying a certain chemical?
    a. mass.
    b. density.
    c. color.
    d. flexibility.

4. In the pH scale, values above 7 are
    a. bases.
    b. acids.
    c. neutral.
    d. None of the above.

5. Drain opener is
    a. a base.
    b. an acid.
    c. a neutral substance.
    d. None of the above.

6. Which of the following are neutral substances?
    a. water, milk, and lemon juice.
    b. water, apple juice, baking soda.
    c. water, milk, salt.
    d. water, baking soda, bleach.

7. carbon dioxide reacts with water to produce carbonic acid.

    a. **reactant(s):** carbon dioxide; **product(s):** water and carbonic acid.

    b. **reactant(s):** carbon and carbonic acid; **product(s):** water.

    c. **reactant(s):** carbon dioxide and water; **product(s):** carbonic acid.

    d. **reactant(s):** carbonic acid; **product(s):** water and carbon dioxide.

8. When methane is burned it interacts with oxygen to form carbon dioxide and water vapor. Which of the following is the word chemical equation for this reaction?

    a. methane + carbon dioxide → water + oxygen.

    b. dioxide + carbon → methane oxygen + water.

    c. oxygen + carbon dioxide → methane + water

    d. methane + oxygen → carbon dioxide + water.

9. During a chemical interaction the mass of the reactants...

    a. always equals the mass of the products.

    b. may be greater than the mass of the products.

    c. may be less than the mass of the products.

    d. has nothing to do with the mass of the products.

10. Below is an incomplete energy diagram for the reaction between barium hydroxide and ammonium nitrate to produce ammonia, water, and barium nitrate. When these two substances are mixed together in a flask, the flask feels cool. Draw and label the energy transfer arrow (energy input or energy output and the type of energy transfer). Fill in the blank of the energy oval.