

Matter

Write the letter of the correct answer on the line at the left.

1 ____ The amount of matter in an object is a measure of its

- A. volume
- B. density
- C. weight
- D. mass

2 ____ the formula for calculating density is

- A. mass x volume
- B. mass x weight
- C. $\frac{\text{mass}}{\text{volume}}$
- D. $\frac{\text{volume}}{\text{mass}}$

3 ____ which of the following statements about the mass of an object is correct?

- A. Mass changes with location
- B. Mass remains constant.
- C. Mass changes with altitude
- D. Mass changes with gravity

Identify the type of change or changes that apply to each description by writing P for physical change, C for chemical change, and PC for both on the appropriate line.

1. ____ occurs when energy is added or removed.
2. ____ a new substance is produced.
3. ____ a substance changes form, but it remains the same substance.
4. ____ freezing water is an example.
5. ____ rusting metal is an example.

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

1. ____ temperature
2. ____ exothermic change
3. ____ chemical energy
4. ____ endothermic change
5. ____ thermal energy
6. ____ law of conservation of mass
7. ____ physical change
8. ____ chemical change

- a. The energy store in the chemical bonds between atoms.
- b. A change in which energy is absorbed.
- c. A measure of the energy of motion of the particles of matter
- d. The total energy of all particles in an object
- e. The fact the matter is neither created or destroyed in any physical or chemical change
- f. A change in which energy is released
- g. A change in matter that produces one or more substances
- h. Alters the form or appearance of matter but does not turn any substance in the matter into another substance