

Matter and Measurement Practice Test 1 CP

Multiple Choice

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

- _____ 1. Which of the following is a physical change?

a. corrosion	c. evaporation
b. explosion	d. rotting of food
- _____ 2. Which of the following is NOT a physical change?

a. grating cheese	c. fermenting of cheese
b. melting cheese	d. mixing two cheeses in a bowl
- _____ 3. All of the following changes to a metal are physical changes EXCEPT _____.

a. bending	c. rusting
b. melting	d. polishing
- _____ 4. Which of the following processes does NOT involve a change in chemical properties?

a. rusting	c. boiling
b. fermenting	d. burning
- _____ 5. A chemical change occurs when a piece of wood _____.

a. is split	c. decays
b. is painted	d. is cut
- _____ 6. When paper turns yellow-brown upon exposure to sunlight, what type of change is likely taking place?
 - a. a physical change
 - b. a chemical change
 - c. neither a physical change nor a chemical change
 - d. both a physical change and a chemical change
- _____ 7. Which of the following indicates that a chemical change has happened during cooking?
 - a. The food darkens.
 - b. Bubbles form in boiling water.
 - c. Butter melts.
 - d. Energy is transferred from the stove to a pan.
- _____ 8. The diameter of a carbon atom is 0.000 000 000 154 m. What is this number expressed in scientific notation?

a. 1.54×10^{12} m	c. 1.54×10^{10} m
b. 1.54×10^{-12} m	d. 1.54×10^{-10} m
- _____ 9. Which group of measurements is the most precise? (Each group of measurements is for a different object.)

a. 2 g, 3 g, 4 g	c. 2 g, 2.5 g, 3 g
b. 2.0 g, 3.0 g, 4.0 g	d. 1 g, 3 g, 5 g
- _____ 10. Three different people weigh a standard mass of 2.00 g on the same balance. Each person obtains a reading of 7.32 g for the mass of the standard. These results imply that the balance that was used is _____.

a. accurate	c. accurate and precise
b. precise	d. neither accurate nor precise
- _____ 11. In the measurement 0.503 L, which digit is the estimated digit?
 - a. 5
 - b. the 0 immediately to the left of the 3
 - c. 3
 - d. the 0 to the left of the decimal point

Name: _____

ID: A

- _____ 12. What is the volume of a salt crystal measuring 2.44×10^{-2} m by 1.4×10^{-3} m by 8.4×10^{-3} m?
- a. 2.9×10^{-7} m³
 - b. 2.9×10^{-6} m³
 - c. 2.9×10^{-5} m³
 - d. 2.9×10^{-4} m³
- _____ 13. The weight of an object _____.
- a. is the same as its mass
 - b. depends on its location
 - c. is not affected by gravity
 - d. is always the same
- _____ 14. Density is found by dividing _____.
- a. mass by volume
 - b. volume by mass
 - c. mass by area
 - d. area by mass
- _____ 15. What is the density of an object having a mass of 8.0 g and a volume of 25 cm³?
- a. 0.32 g/cm³
 - b. 2.0 g/cm³
 - c. 3.1 g/cm³
 - d. 200 g/cm³
- _____ 16. What is the volume of 80.0 g of ether if the density of ether is 0.70 g/mL?
- a. 5.6×10^1
 - b. 1.1×10^2
 - c. 8.8×10^{-3}
 - d. 8.0×10^1
- _____ 17. What is the volume of 45.6 g of silver if the density of silver is 10.5 g/mL?
- a. 0.23 mL
 - b. 4.34 mL
 - c. 479 mL
 - d. none of the above