S8P1-3

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1. Bill has an unknown liquid. In five different tests the liquid shows the same properties as water. Bill can conclude that the liquid

A. is definitely water.
B. cannot be water.
C. is partly water.
D. could be water.

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2. The observation that ice cubes float in a glass of water can be explained by the fact that

A. most substances have less energy as solids than as liquids.
B. most substances are less dense as solids than as liquids.
C. ice has less energy than liquid water.
D. ice is less dense than liquid water.

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3. If you saw an ice cube sink after it was placed in what you thought was a glass of water, which question should you probably ask?

A. What kind of liquid is in the glass?
B. Will the ice melt slower or quicker?
C. How fast did the ice cube sink?
D. How soon would the ice cube start to float?

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4. A magnet will attract which of these objects?

A. bar of soap
B. iron nail
C. plastic bottle cap
D. glass marble

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5. An unknown element that is malleable, shiny, and conducts electricity would most likely be classified as

A. an acid.
B. a salt.
C. a metal.
D. an ester.

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6. Which is a metric unit for density?

A. g/cm
B. cm/g
C. g/cm^3
D. cm^3/g

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7. When a gas forms a liquid, which process is taking place?

A. freezing
B. condensation
C. boiling
D. evaporation

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8. Which unit correctly describes density?

A. pounds/square inch
B. kilograms/square meter
C. milligrams/square centimeter
D. grams/milliliter

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9. *Use the table below to answer this question.*

Substance	**Melting Point (°C)**
beeswax	62
gold	1,063
lead	327
oxygen	–218

Based on the melting points shown in the table, which material would still be a solid at 400°C?

A. beeswax
B. gold
C. lead
D. oxygen

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10. The amount of matter in an object is called its

A. weight.
B. gravity.
C. mass.
D. force.

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11. Use the table below to answer this question.

1981 Pennies		1985 Pennies	
M ss (g)	Volume (cm^3)	Mass (g)	Volume (cm^3)
3.5	0.9	2.5	0.9

In 1982, the composition of US pennies was changed. According to the information in the table, 1985 pennies

A. are more dense than 1981 pennies.
B. are less dense than 1981 pennies.
C. are equal in density to 1981 pennies.
D. cannot be compared to 1981 pennies.

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12. Which statement is usually true about the electrical properties of metals?

A. Metals have high electrical resistance.
B. Lightweight metals are the best conductors.
C. Metals and plastics are both good insulators.
D. Metals are good electrical conductors.

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13. Students poured equal amounts of different liquids to see how the liquids became layered. The denser liquids layered at the bottom. The lighter liquids layered at the top. Which tool should the students use in this experiment?

A. a balance scale
B. a thermometer
C. a magnet
D. a graduated cylinder

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14. Tom places four objects in a tank of water. He makes the following observations.

- A cork floats.
- A rock sinks.
- A soda can floats.
- A piece of chalk sinks.

Which statement is correct based on Tom's observations?

A. The rock and the chalk have a density greater than water.

B. The rock and the chalk have a density less than water.

C. The cork and the can of soda have a density equal to water.

D. The cork and the can of soda have a density greater than water.

15.

Silver is a white metal that is an excellent conductor of heat and electricity. The density of silver is 10.49 g/cm^3. Silver does not react with water but does react with nitric acid. Silver tarnishes when exposed to air.

A physical property of silver is

A. Silver reacts with nitric acid.
B. Silver does not react with water.
C. The density of silver is 10.49 g/cm^3.
D. Silver tarnishes when exposed to air.

16.

Silver is a white metal that is an excellent conductor of heat and electricity. Silver tarnishes when exposed to air and light. The density of silver is 10.49 g/cm^3. The melting point is 962^oC and the boiling point is 2000^oC.

A chemical property of silver is

A. Silver tarnishes.
B. Silver is an excellent conductor.
C. The density of silver is 10.49 g/cm^3.
D. The boiling point of silver is 2000^oC.

17.

In general, metals are solid at room temperature, malleable, ductile, good conductors of heat and electricity, and react in acids to produce hydrogen gas. Which of the properties mentioned is a chemical property?

A. ductile
B. malleable
C. good conductors
D. reacts with acids

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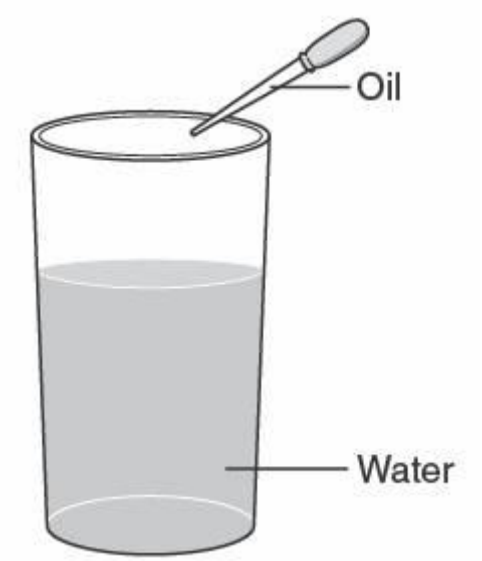
18. **If a small amount of oil is dropped into the water, the —**



A. oil and the water will mix.

B. oil will rise to the top of the water.

C. water will take up less space in the jar.

D. water will rise to the top of the oil.

Answer Key

1. D) could be water.

2. D) ice is less dense than liquid water.

3. A) What kind of liquid is in the glass?

4. B) iron nail

5. C) a metal.

6. C) g/cm^3

7. B) condensation

8. D) grams/milliliter

9. B) gold

10. C) mass.

11. B) are less dense than 1981 pennies.

12. D) Metals are good electrical conductors.

13. D) a graduated cylinder

14. A) The rock and the chalk have a density greater than water.

15. C) The density of silver is 10.49 g/cm^3.

16. A) Silver tarnishes.

17. D) reacts with acids

18. B) oil will rise to the top of the water.