Name _____ Class _____ Date _____

Section Quiz

Section: Tools and Models in Science

Write the letter of the correct answer in the space provided.

_____ **1.** Which of the following is true of the International System of Units?
- **a.** It is based on the number 10.
- **b.** It is more complex than the metric system.
- **c.** It is less complex than the metric system.
- **d.** It is based on the number 5.

_____ **2.** Which of the following tools would NOT be used to take accurate measurements while collecting data?
- **a.** calculator
- **b.** thermometer
- **c.** spring scale
- **d.** meterstick

_____ **3.** Which of the following is NOT a type of model that is commonly used in science and uses familiar things to describe unfamiliar things?
- **a.** physical
- **b.** mathematical
- **c.** economic
- **d.** conceptual

_____ **4.** A system of ideas that explains observations and is supported by a large amount of scientific evidence is called a(n)
- **a.** model.
- **b.** theory.
- **c.** tool.
- **d.** law.

Match the correct definition with the correct term. Write the letter in the space provided.

_____ **5.** a measure of how hot or how cold something is

_____ **6.** a descriptive statement or equation that reliably predicts events under certain conditions

_____ **7.** the ratio of the mass of a substance to the volume of the substance

_____ **8.** a measure of the size of an object or region in three-dimensional space

_____ **9.** a representation of an object or system that is used to support or disprove scientific theories and laws

_____ **10.** a measure of the amount of matter in an object

- **a.** density
- **b.** temperature
- **c.** volume
- **d.** mass
- **e.** model
- **f.** law

Assessment

Section Quiz

Section: Organizing Your Data

Match the correct description with the correct term. Write the letter in the space provided.

_____ **1.** the factor in an experiment that is measured; changes as a result of manipulation of one or more other factors

_____ **2.** the size that is used for each box or grid mark on a graph

_____ **3.** one of two or more reference lines that mark the borders of a graph

_____ **4.** the factor in an experiment that is deliberately manipulated

_____ **5.** the difference between the smallest and largest values of the same variable

_____ **6.** the pattern of data in a graph

a. axis

b. scale

c. dependent variable

d. range

e. independent variable

f. trend

Write the letter of the correct answer in the space provided.

_____ **7.** If a graph shows the relationship between the dependent variable and independent variable with a straight line, the graph is
   a. linear.
   b. nonlinear.
   c. direct.
   d. inverse.

_____ **8.** Which of the following can be found in a data table?
   a. scale
   b. axis
   c. independent variable
   d. data point

_____ **9.** If a graph shows the relationship between the independent variable and the dependent variable as a curved line, the graph is
   a. linear.
   b. nonlinear.
   c. direct.
   d. inverse.

_____ **10.** Which of the following is NOT a feature of a graph?
   a. range
   b. trend
   c. axis
   d. column

Assessment

Section Quiz

Section: Analyzing Your Data

Match the correct description with the correct term. Write the letter in the space provided.

_____ **1.** the value of the middle item when data are arranged in order by size

_____ **2.** the most frequently occurring value in a data set

_____ **3.** the degree of slant of a line; the ratio of rise over run

_____ **4.** the number obtained by adding up the data for a given characteristic and dividing this sum by the number of individuals

a. mode

b. slope

c. median

d. mean

Write the letter of the correct answer in the space provided.

_____ **5.** Which of the following tasks is mathematics NOT used for?
   a. to learn a foreign language
   b. to summarize large amounts of information
   c. to determine properties such as volume, area, and density
   d. to answer questions

_____ **6.** To get an accurate data reading, scientists must be sure to
   a. always use a measuring cup.
   b. use broken equipment.
   c. use the wrong tool.
   d. use the right tool.

_____ **7.** Which of the following circumstances would result in the rejection of scientific data?
   a. Scientists were able to repeat the results.
   b. Scientists used the "language of science" to present their data.
   c. Scientists could not repeat the results.
   d. The data were analyzed using a mathematical model.

_____ **8.** In the equation $y = kx$, the slope of the line is represented by the constant
   a. x.
   b. k.
   c. y.
   d. $k + x$.