

STAR Test Review; Ver 3

Completion

Complete each statement.

1. Developing a hypothesis and designing an experiment to test it is part of the process of scientific_____.
2. Publishing an article in a scientific journal is one way that scientists _____ their conclusions.
3. Density is a measure of how much mass is contained in a given _____.
4. An estimate is not a guess because an estimate is based on _____.
5. If you add 4.667 g and 3.2 g, the answer has _____ significant figures.
6. A repeating pattern in a graph is a(n) _____ trend.
7. The most important lab safety rule is to always follow your teacher's _____ and the textbook directions exactly.
8. _____ means using one or more senses to gather information.
9. The study of matter, energy, motion, and forces, and how they interact, is called _____.
10. A line graph in which the data points yield a straight line is called a _____ graph.
11. The point where the x -axis and y -axis cross is called the _____ of a graph.
12. A student increases the volume of a water sample five times to determine if the volume has an effect on the freezing point. In this experiment, the volume of water is the _____ variable.
13. Every form of matter has two kinds of properties—physical properties and _____ properties.
14. Hardness, texture, color, and freezing point are examples of _____ properties of matter.
15. A compound may be represented by a(n) _____, which shows the elements in the compound and the ratio of atoms.
16. A(n) _____ is a group of two or more atoms that are held together by chemical bonds.
17. A(n) _____ is a substance formed from two or more elements that are chemically combined in a set ratio.
18. Dissolving a spoonful of sugar in tea or coffee is an example of a(n) _____ change.
19. The tarnishing of metal is an example of a(n) _____ change.

20. The fact that matter is not created or destroyed in any chemical or physical change is called the _____.
21. The burning of a fuel transforms _____ energy and releases it as thermal energy and electromagnetic energy.
22. _____ is a measure of the average energy of random motion of particles of matter.
23. The three familiar states of matter are solid, _____, and gas.
24. The slow combination of a shiny metal with another substance that produces a dark coating on the metal is called _____.
25. The energy your body obtains when you eat food originally comes from the _____.
26. Like matter, _____ is never created or destroyed in chemical reactions.
27. Salt, sugar, and snow are examples of _____ solids.
28. Solids that have particles arranged in a regular, repeating pattern are known as _____ solids.
29. When a substance cools, it loses _____ energy to its surroundings.
30. The temperature of a substance increases when the _____ energy of the substance increases.
31. The characteristic temperature at which a pure solid changes to a liquid is its _____ point.
32. _____ is a measure of the average energy of motion of the particles of a substance.
33. To test Boyle's law, you could change the volume of a gas and measure its _____ at constant _____.
34. The graph of Boyle's law shows that as the volume of a gas at constant temperature is changed, its pressure varies _____ with the volume.
35. The _____ is the very small center core of an atom.
36. The property of an element that indicates the number of protons in its atoms is the _____.
37. Mendeleev discovered that periodic patterns appeared when he arranged the elements in order of increasing _____.
38. In the 1800s, Dmitri Mendeleev organized the first truly useful _____.
39. A column of elements in the periodic table is called a group, or _____.
40. Each element is given a specific _____ that usually consists of one or two letters.

41. Elements that easily transmit electricity and heat display the property known as _____.
42. Most metals are in the _____ state at room temperature.
43. A(n) _____ particle is positively charged and consists of two protons and neutrons.
44. A(n) _____ is a fast-moving electron given off by a nucleus during radioactive decay.
45. Chemical bonds form when valence electrons are _____ between atoms.
46. Nitrate (NO_3^-), ammonium (NH_4^+), and carbonate (CO_3^{2-}) are examples of _____ ions.
47. When ions having a positive charge form bonds with ions having a negative charge, the charge on the resulting compound is _____.
48. _____ changes occur when bonds form between atoms, or when bonds break and new bonds form.
49. The presence of a solute makes it harder for solvent molecules to escape when heated, so the boiling point of a solution is _____ than that of the pure solvent.
50. A(n) _____ is a compound that tastes sour and reacts with some metals.
51. A(n) _____ is a compound that turns litmus blue and is often found in soaps and detergents.
52. One reason _____ can form so many compounds is that the same number of atoms can be bonded in different arrangements.
53. When one carbon atom is bonded with several other carbon atoms in a single line, the structure is described as a(n) _____.
54. Polymers that are produced in factories instead of by living things are called _____ polymers.
55. _____ is a natural composite made of long fibers of cellulose held together by another polymer called lignin.
56. The simple carbohydrate that is present in the blood and that circulates throughout the body is _____.
57. The simplest kind of carbohydrate is a(n) _____.
58. A reference point is assumed to be _____, or not moving.
59. When riding a bicycle past a building, you are not moving relative to the _____.
60. The distance traveled by a moving object per unit of time is called _____.
61. Speed that does not change is referred to as _____ speed.
62. The statement that the motion of a hurricane is 20 kilometers per hour in an easterly direction is a description of the hurricane's _____.

63. Acceleration is the rate of change in _____.
64. A golf ball _____ when either its speed or direction changes.
65. The abbreviation of the unit of acceleration (meters per second per second) is _____.
66. If a ship has an acceleration of 3 kilometers per hour per hour, its speed is expressed in the unit _____.
67. If two lines appear on the same motion graph, the line with the steeper _____ indicates a greater speed.
68. A large truck and a small car are moving at the same speed. The truck has greater kinetic energy because its _____ is greater.
69. If the velocity of an object is doubled, its kinetic energy is multiplied by _____.
70. A quantity that consists of both a magnitude and a direction is called a(n) _____.
71. The overall force on an object after all the forces are added together is called the _____ force.
72. Unbalanced forces acting on an object produce a change in the object's _____.
73. Wet pavement is more slippery than dry pavement because the force needed to overcome _____ friction is less than the force needed to overcome sliding friction.
74. Friction acts in a direction _____ to an object's direction of motion.
75. The force of gravity between you and Earth is greater than the force of gravity between you and a car because Earth has more _____ than the car.
76. The metric unit that is most often used to describe weight is the _____.
77. A measure of an object's _____ is a measure of the object's inertia.
78. A person traveling in a car that stops suddenly keeps moving forward due to _____.
79. According to Newton's third law of motion, the strength of a reaction force is _____ the strength of the action force.
80. If the action force of a bat striking a ball accelerates the ball in one direction, the reaction force accelerates the bat in the _____ direction.
81. The momentum of an object is in the same _____ as its velocity.
82. Because the moon travels around Earth, it is a(n) _____.
83. The force of gravity is responsible for continuously changing the _____ in which a satellite moves.
84. The pressure resulting from a force of 50 N exerted over an area of 5 m² is _____ Pa.
85. Pressure _____ as the area over which a force is distributed increases.

86. The buoyant force acts in the direction opposite the force of _____.
87. A block of wood is placed in a jar of water. According to Archimedes' principle, the _____ on the block is equal to the weight of the displaced fluid.
88. Chocolate syrup sinks in milk because chocolate syrup is more _____ than milk.
89. An Earth-centered model of the universe is called a(n) _____ model.
90. _____ discovered Jupiter's four largest moons.
91. The _____ consists of the sun, the planets and their moons, and several kinds of smaller objects.
92. Nuclear fusion occurs in the _____, or center, of the sun.
93. Energy is transferred from the sun's core toward the convection zone mainly in the form of _____.
94. The middle layer of the sun's atmosphere is the _____.
95. Red light has the longest _____ of any color of visible light.
96. The electromagnetic waves that have the lowest frequencies are called _____.
97. An object's apparent change in position when viewed from two different places is called _____.
98. A galaxy that does not have a regular shape is classified as a(n) _____ galaxy.
99. A(n) _____ galaxy has a characteristic pinwheel shape.

