

21. The force that one surface exerts on another when the two rub against each other is called
 - a. friction.
 - b. acceleration.
 - c. gravity.
 - d. inertia.
22. The tendency of an object to resist any change in its motion is known as
 - a. balance.
 - b. mass.
 - c. force.
 - d. inertia.
23. According to Newton's third law of motion, when a hammer strikes and exerts force on a nail, the nail
 - a. moves at a constant speed.
 - b. creates a friction with the hammer.
 - c. exerts an equal force back on the hammer.
 - d. disappears into the wood.
24. The greater the mass of an object,
 - a. the easier the object starts moving.
 - b. the more balanced it is.
 - c. the more space it takes up.
 - d. the greater its inertia.
25. The law of universal gravitation states that any two objects in the universe, without exception,
 - a. repel each other.
 - b. attract each other.
 - c. create friction.
 - d. combine to provide a balanced force.
26. A place or object used for comparison to determine if something is in motion is called
 - a. a reference point.
 - b. velocity.
 - c. a constant.
 - d. a position.
27. When you know both the speed and the direction of an object's motion, you know the
 - a. velocity of the object.
 - b. acceleration of the object.
 - c. average speed of the object.
 - d. distance the object has traveled.
28. One way to increase acceleration is by
 - a. increasing mass.
 - b. decreasing mass.
 - c. decreasing force.
 - d. increasing both force and mass proportionally.

Complete each sentence or statement.

29. The overall force on an object after all the forces are added together is called the _____ force.
30. _____ forces acting on an object produce a change in motion.