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.