Name _____ Date _____

Motion

Read each question and circle the correct answer.

1. Potential energy is based on an object's

A. gravity.
B. mass.
C. position.
D. kinetic.

2. The energy of motion is called _____ energy.

A. potential
B. electrical
C. chemical
D. kinetic

3. A force that opposes motion between two touching surfaces is called:

A. friction
B. acceleration
C. speed
D. direction

4. The rate an object is moving relative to a reference point is its

A. velocity.
B. speed.
C. deceleration rate.
D. mechanical potential energy rate.

5. The speed at which an object is moving in a specific direction is its

A. speed.
B. acceleration rate.
C. velocity.
D. mechanical potential energy rate.

6. An object's average speed is found by dividing the total distance the object travels by the total

A. mass of the object.
B. acceleration of the object.
C. specific gravity of the object.
D. time it takes to move that distance.

7. Newton's First Law of Motion states that an object in motion tends to stay in motion unless it

A. starts to decelerate.
B. runs out of kinetic energy.
C. is acted upon by another force.
D. approaches the speed of light.

8. Newton's Second Law of Motion says that the acceleration of an object depends on the object's mass and the

A. equation $E = MC^2$.

B. amount of force applied to the object.

C. negative acceleration factor.

D. amount of atoms the object has.

9. Newtons Third Law of Motion states that for every action there is an equal and opposite reaction. Which of these illustrates Newton's Third Law?

A. Two students of similar mass run into each other. They bounce off each other when they collide.

B. Two students of similar mass run side by side into a wall and punch holes of equal size before emerging on the other side.

C. Two students of similar mass run in opposite directions, but one accelerates at twice the rate of the other.

D. Two students of similar mass run at the same speed in opposite directions on a track. They will collide with 400 Newtons of force in 400 meters.

10. A device which makes work easier is called a

A. magnet.

B. newton.

C. simple machine.

D. force.