

Assessment

Ch. 11: Practice Quiz Section 1**Section: Measuring Motion**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. An object that **changes position relative to a reference point** is
- | | |
|----------------|---------------------------------|
| a. stationary. | c. moving at constant speed. |
| b. in motion. | d. moving at constant velocity. |
- _____ 2. **Average speed** can be represented by the mathematical expression
- | | |
|---|--------------------------------------|
| a. $\text{distance}/\text{time}$. | c. $\text{time} - \text{distance}$. |
| b. $\text{distance} \times \text{time}$. | d. $\text{time} + \text{distance}$. |
- _____ 3. The _____ of an object consists of its **speed and direction**.
- | | |
|------------------------|------------------|
| a. velocity | c. average speed |
| b. instantaneous speed | d. displacement |
- _____ 4. The **average speed** of a runner who runs 500.0 m in 1.6 min is
- | | | | |
|--------------|-------------|------------|-------------|
| a. 0.19 m/s. | b. 5.2 m/s. | c. 96 m/s. | d. 312 m/s. |
|--------------|-------------|------------|-------------|
- _____ 5. A car moving at an average speed of 55.0 mi/h for 4.25 h has traveled
- | | | | |
|-------------|-----------|-----------|------------|
| a. 0.08 mi. | b. 13 mi. | c. 55 mi. | d. 234 mi. |
|-------------|-----------|-----------|------------|
- _____ 6. On a distance vs. time graph of an object's motion, **distance** is usually
- | | |
|------------------------------|----------------------------|
| a. plotted on the x -axis. | c. the dependent variable. |
| b. greater than time. | d. measured in ft/min. |
- _____ 7. A pitcher throws a baseball to home plate, a distance of 60.5 ft. The ball reaches home plate in 0.63 s. What is the **velocity** of the ball?
- | | |
|------------------------------|------------------------------|
| a. 38 ft/s | c. 96 ft/s |
| b. 38 ft/s toward home plate | d. 96 ft/s toward home plate |
- _____ 8. When the motion of an object is shown by a **straight line** on a distance vs. time graph with distance on the y -axis, the slope of the line is the
- | | |
|-----------------------|--------------------|
| a. distance traveled. | c. speed. |
| b. displacement. | d. time of travel. |
- _____ 9. Displacement must always indicate
- | | |
|---------------|-----------|
| a. velocity. | c. speed. |
| b. direction. | d. time. |

Assessment

Ch. 11: Practice Quiz Section 2**Section: Acceleration**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. Speeding up, slowing down, and changing direction is best described as
a. velocity. b. distance. c. displacement. d. acceleration.
- _____ 2. When **centripetal acceleration** occurs, an object
a. speeds up. b. slows down. c. changes direction. d. is stationary.
- _____ 3. The equation for finding average acceleration for straight-line motion is
a. initial velocity – final velocity \times time.
b. (final velocity – initial velocity)/time.
c. initial velocity + final velocity + time.
d. initial velocity + final velocity – time.
- _____ 4. Moving from 0 m/s to 25 m/s in 8.0 s equals an average acceleration of
a. 0.32 m/s. b. 0.32 m/s². c. 3.1 m/s. d. 3.1 m/s².
- _____ 5. A cyclist is traveling at an initial speed of 10.0 m/s. She accelerates at a rate of 0.500 m/s². What is her final speed after 9.0 s?
a. 14.5 m/s b. 14.5 m/s² c. 5.5 m/s d. 5.5 m/s²
- _____ 6. Peter runs in a constant direction on a straight road. The velocity vs. time graph of Peter's motion shows a straight line with a negative slope. What does the line tell you about Peter's speed?
a. It is increasing. c. It is decreasing, then increasing.
b. It is decreasing. d. It is constant.
- _____ 7. When velocity changes by the same amount over each time interval, acceleration is
a. zero. b. constant. c. positive. d. negative.
- _____ 8. On a velocity vs. time graph, what shows the value of the acceleration?
a. the slope of the line c. the y-axis
b. the x-axis d. the final velocity
- _____ 9. A cheetah can accelerate at up to 6.0 m/s². How long does it take for a cheetah to speed up from 10.5 m/s to 12.2 m/s?
a. 0.28 s b. 1.7 s c. 3.5 s d. 10 s
- _____ 10. What happens when a car slows down and velocity changes?
a. positive acceleration c. negative acceleration
b. resultant acceleration d. constant acceleration

Assessment

Ch. 11 Practice Quiz Section 3**Section: Motion and Force**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. Net force is
- the force acting in the same direction as an object's movement.
 - the force acting in the opposite direction of an object's movement.
 - the combination of all the forces acting on an object.
 - the force of gravity pulling an object down.
- _____ 2. An object experiencing balanced forces
- has a net force of zero.
 - is speeding up.
 - is slowing down.
 - stops moving.
- _____ 3. A game of tug-of-war is an example of
- rolling friction.
 - air resistance.
 - streamlining.
 - unbalanced forces.
- _____ 4. Which is an example of static friction?
- pulling a skier behind a boat
 - pushing a box that is at rest
 - braking a car going down a hill
 - driving a car up a hill
- _____ 5. Which is *not* an example of sliding friction?
- ice skating on a frozen pond
 - taking notes with a pencil
 - rolling a ball across a desk
 - pushing a book across a table
- _____ 6. In order to increase a car's speed, the force pushing it forward must be
- a negative force.
 - rolling friction.
 - equal to the force of friction.
 - greater than the force of friction.
- _____ 7. The friction between objects that are stationary is called
- static friction.
 - rolling friction.
 - fundamental friction.
 - kinetic friction.
- _____ 8. Which is an example of helpful friction?
- wearing batting gloves
 - sprinkling sand on an icy road
 - applying the brakes on a car
 - All of the above
- _____ 9. Which of the following requires friction?
- cleaning a pan
 - writing a letter
 - skiing
 - All of the above
- _____ 10. Using lubricants on engine parts is an example of reducing
- force.
 - friction.
 - acceleration.
 - motion.