Name: _____

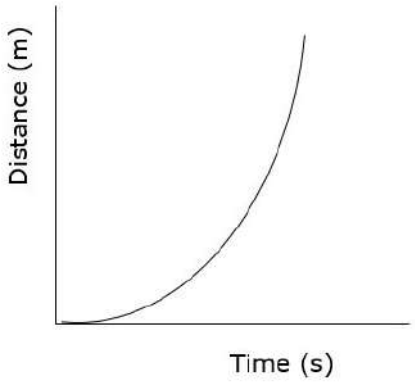
Physical Science Chapter 11 Practice Sheet

Answer the following questions.

1. A car with an initial velocity of 12 meters per second east slows uniformly to 2 meters per second east in 4.0 seconds. What is the acceleration of the car during this 4.0 second interval?
    a. 6.0 m/s^2 east
    b. 2.5 m/s^2 west
    c. 2.5 m/s^2 east
    d. 6.0 m/s^2 west

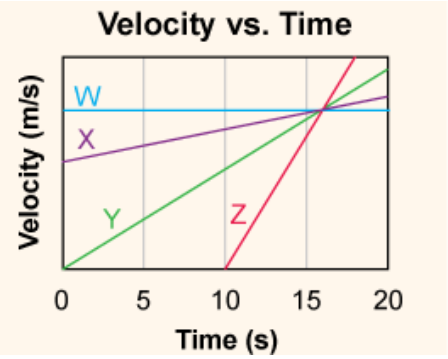
2. A car is driven southward in a straight line with decreasing speed. Which of the following statements is necessarily true about the acceleration of the car?
    a. It is constant but not zero.
    b. It is directed southward.
    c. It is zero.
    d. It is directed northward.

3. What motion of an object is the graph representing?
    a. stationary
    b. acceleration
    c. deceleration
    d. constant speed



4. What is the difference between speed and velocity?
    a. Velocity includes an object's direction, and speed does not.
    b. Speed includes an object's direction, and velocity does not.
    c. Velocity is always greater than zero, but speed can be greater or less than zero.
    d. Speed is always greater than zero, but velocity can be greater or less than zero.

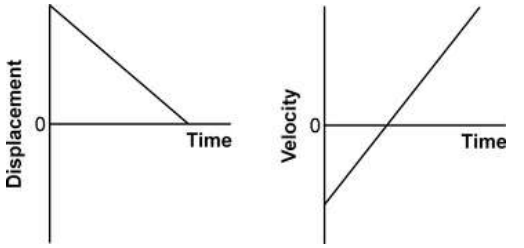
5. Which car has the GREATEST magnitude of acceleration during the time interval 10 seconds to 15 seconds?



   a. W
   b. X
   c. Y
   d. Z

6. Which pair of graphs represents the same motion of an object?

a.



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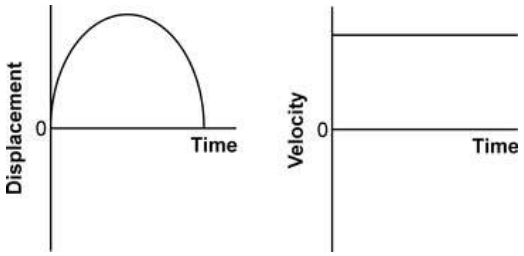

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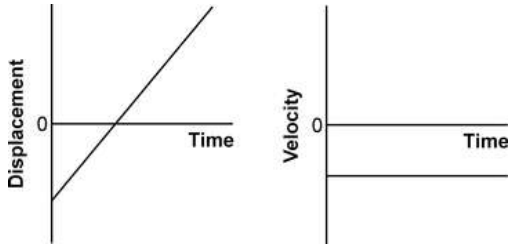
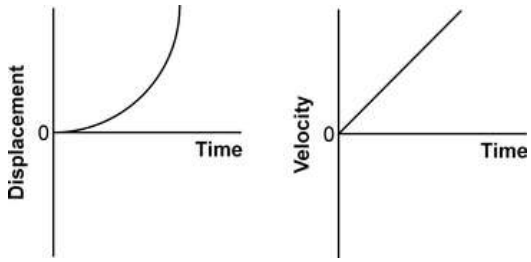


d.

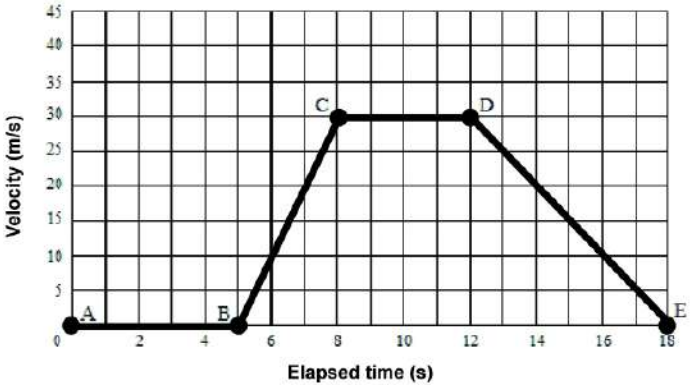


7. Kendra drove 300 km in 2 hours. Henry drove the same 300 km in 3 hours. If Kendra and Henry had the same average speed for their trips, what must be true?
   a. Kendra must have stopped for one hour during her trip.
   b. Henry must have stopped for one hour during his trip.
   c. Kendra must have had a lower velocity than Henry.
   d. Henry must have had a lower velocity than Kendra.

8. An object is continuously changing its velocity by the same rate. What is true about this object?
   a. The object has decreasing acceleration.
   b. The object has increasing acceleration.
   c. The object has zero acceleration.
   d. The object has constant acceleration.

9. In which section of the graph is the magnitude of the acceleration the GREATEST?

a. AB
b. BC
c. CD
d. DE



10. How far did the vehicle travel from t = 0.0 s to t = 10.0 s?

a. 0 m
b. 15 m
c. 35 m
d. 40 m