

Chapter 2 Quiz 1

1. The motion of an object is best measured against a

- A. moving frame of reference.
- B. frame of reference that is changing position.
- C. frame of reference that is not moving.
- D. frame of reference in which time does not change.

2. During a five-minute period, a caterpillar crawls in a straight line along the edge of a meter stick from the 18 cm mark to the 42 cm mark. The displacement of the caterpillar during this time is

- A. 18 cm.
- B. 24 cm.
- C. 42 cm.
- D. 60 cm.

3. A friend's house is 1326 m eastward from your house. If you drive straight east and arrive at your friend's house 103 s later, the average velocity of your trip is

- A. 12.9 m/s east.
- B. 12.9 m/s.
- C. 12.9 m/s west.
- D. unknown.

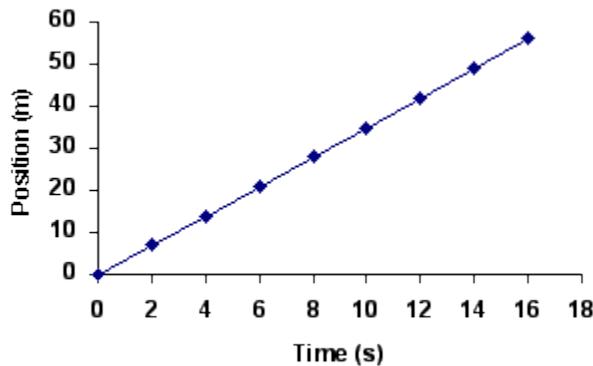
4. How many minutes will it take you to walk a distance of 3.20 km northward if your average velocity is 1.65 m/s north?

- A. 1.94 min
- B. 32.3 min
- C. 1940 min
- D. 5.28 min

5. In which of the following situations is the net displacement of an object equal to zero?

- A. The object is moved -4 m in the x direction and 4 m in the y direction.
- B. The object is moved -4 m in the x direction, -4 m in the y direction, and 4 m in the x direction.
- C. The object is moved -4 m in the y direction, 6 m in the y direction, and -2 m in the y direction.
- D. The object is moved -4 m in the x direction, 6 m in the x direction, and -2 m in the x direction.

6. The motion of an object is represented by the following graph.



The velocity of the object is approximately

- A. 2.0 m/s.
- B. 3.5 m/s.
- C. 7.0 m/s.
- D. 14 m/s.

7. Distance is a _____ quantity.

- A. Scalar
- B. Vector
- C.
- D.

8. Displacement is a _____ quantity.

- A. Scalar
- B. Vector
- C.
- D.

9. What is the displacement of the cross-country team if they begin at the school, run 10 miles and finish back at the school?

- A. 0 mi
- B. 10 mi
- C. 20 mi
- D. 40 mi

10. What is the distance and the displacement of the race car drivers in the Indy 500?

- A. 0 mi , 0 mi
- B. 0 mi, 500 mi
- C. 500 mi, 500 mi
- D. 500 mi, 0 mi