

Chapter 11 Motion

Section 11.2 Speed and Velocity**(pages 332–337)**

This section defines and compares speed and velocity. It also describes how to calculate average speed.

Reading Strategy (page 332)

Monitoring Your Understanding After you read this section, identify several things you have learned that are relevant to your life. Explain why they are relevant to you. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Facts About Speed and Velocity	
What Is Important	Why It Is Important

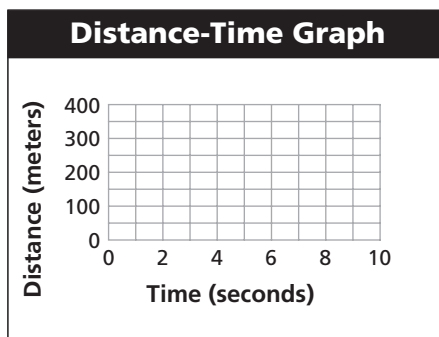
Speed (pages 332–334)

1. Define speed. _____

2. Circle the letter of each sentence that is true for either instantaneous speed or average speed, but not both.
 - a. It is measured in meters per second.
 - b. It is measured at a particular instance.
 - c. It is computed for an entire trip.
3. Is the following sentence true or false? You can determine how fast you were going at the midpoint of a trip by calculating average speed for the entire trip. _____
4. A student walked 2 km in .5 hour. Circle the letter of his average speed on the way to school.
 - a. 0.5 km/h
 - b. 1.5 km/h
 - c. 4.0 km/h

Chapter 11 Motion**Graphing Motion (page 334)**

For questions 5 through 8, refer to the graph below.



5. Draw a point on the graph that represents 200 m traveled in 4 seconds. Draw a line connecting this point with the origin (0,0). Label this as line A.
6. Draw a point on the graph that represents 100 m traveled in 10 seconds. Draw a line connecting this point with the origin (0,0). Label this as line B.
7. Circle the letter of the average speed (slope) of line A.
a. 10 m/s b. 20 m/s c. 50 m/s
8. Circle the letter of the average speed (slope) of line B.
a. 10 m/s b. 20 m/s c. 50 m/s

Velocity (page 336)

9. Circle the letter of each sentence that describes a change in velocity.
 - a. A moving object gains speed.
 - b. A moving object changes direction.
 - c. A moving object moves in a straight line at a constant speed.
10. Is the following sentence true or false? If a car travels around a gentle curve on a highway at 60 km/h, the velocity does not change.

Combining Velocities (page 337)

11. How do velocities combine? Circle the correct answer.
 - a. by vector addition
 - b. by vector subtraction
 - c. by vector graphing