

Review and Reinforce

Describing Motion

Understanding Main Ideas

Answer the following questions in the spaces provided.

1. Describe how you determine whether an object is in motion.

2. Explain why reference points that are stationary are usually chosen to determine whether an object is in motion.

3. Give three examples of reference points that are stationary relative to Earth.

4. When determining the motion of the planets in the solar system, what is a good reference point to use? Explain.

5. Explain what centimeters, kilometers, and millimeters are.

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- | | |
|--------------------------------------|---|
| 6. ___ motion | a. the measurement system used by scientists |
| 7. ___ reference point | b. the length of the path between two points |
| 8. ___ International System of Units | c. changing position relative to another object |
| 9. ___ distance | d. a place or object used for comparison to determine if an object is in motion |

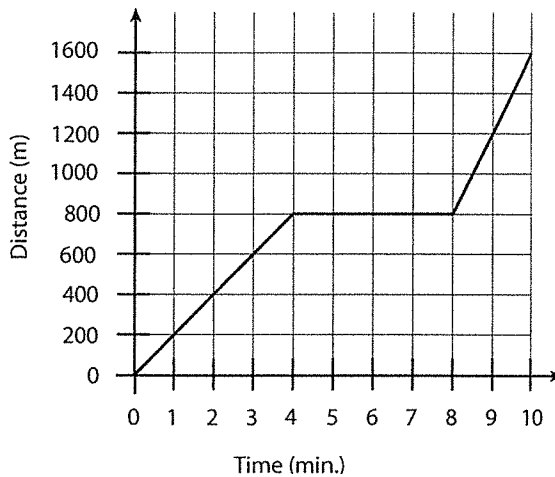
Review and Reinforce

Speed and Velocity

Understanding Main Ideas

Use the following paragraph and graph to answer questions 1 through 5. Write your answers on a separate sheet of paper. Remember to include units in your answers.

On Saturday, Ashley rode her bicycle to visit Aileen. Aileen's house is directly east of Ashley's. The graph shows how far Ashley was from her house after each minute of her trip.



- Ashley rode at a constant speed for the first 4 minutes of her trip. What was her constant speed?
- What was her average speed for the entire trip?
- What was her average velocity for the entire trip?
- Ashley stopped to talk with another friend during her trip. How far was she from her house when she stopped?
- What was Ashley's instantaneous speed 5 minutes into her trip?

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- | | |
|----------------------------|--|
| 6. ___ average speed | a. the distance an object moves per unit of time |
| 7. ___ velocity | b. total distance divided by total time |
| 8. ___ instantaneous speed | c. speed at a given point in time |
| 9. ___ slope | d. speed in a given direction |
| 10. ___ speed | e. the steepness of a line on a graph |

Review and Reinforce

Acceleration

Understanding Main Ideas

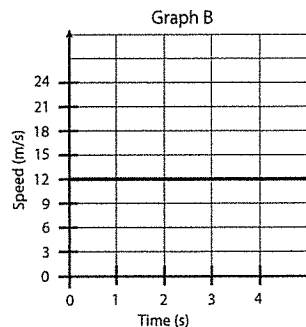
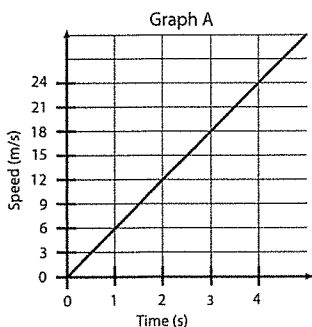
Answer the following questions in the spaces provided.

1. In science, what three changes can each cause an object to accelerate?

2. What is the equation for finding the acceleration of an object moving in a straight line?

3. Graph A below plots a race car's speed for 5 seconds. What is the car's rate of acceleration?

4. Graph B below plots the same race car's speed for a different 5-second interval. What is the car's rate of acceleration during this interval?



Building Vocabulary

Write a definition for the term on the lines below

5. acceleration

Place the outside corner, the corner away from the dotted line, in the corner of your copy machine to copy onto letter-size paper.