

## Chapter Test A

### Describing Motion

#### Multiple Choice

**Directions:** On the line before each question or statement, write the letter of the correct answer.

- \_\_\_\_\_ 1. Which item is necessary to describe location?  
 A. two dimensions  
 B. a reference point  
 C. a change in speed
- \_\_\_\_\_ 2. When an arrow represents velocity, the length of the arrow is  
 A. time.  
 B. speed.  
 C. direction.
- \_\_\_\_\_ 3. If an object speeds up, slows down, or changes direction, it experiences a change in  
 A. mass.  
 B. velocity.  
 C. reference point.

#### Matching

**Directions:** On the line before each definition, write the letter of the term that matches it correctly. Each term is used only once.

##### Matching Set 1

- |   |                        |
|---|------------------------|
| _____ 4. distance and direction from a reference point              | <b>A.</b> displacement |
| _____ 5. process of changing position                               | <b>B.</b> motion       |
| _____ 6. difference between initial and final position of an object | <b>C.</b> position     |

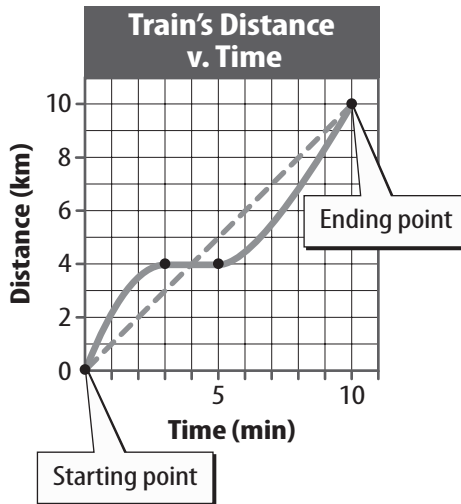
##### Matching Set 2

- |  |                               |
|--|-------------------------------|
| _____ 7. total distance traveled divided by the total time taken to travel that distance | <b>D.</b> average speed       |
| _____ 8. speed at a specific point in time   | <b>E.</b> constant speed      |
| _____ 9. rate of change of position in which the same distance is traveled each second   | <b>F.</b> instantaneous speed |

**Chapter Test A continued**

**Interpreting a Graph**

**Directions:** Use the graph to respond to each statement.



**10. Explain** the kind of movement signified by the dotted line on the graph.

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**11. Identify** what the train was doing four minutes into its journey.

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**12. Describe** the changes in speed that occurred during the train's journey.

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**Chapter Test A continued**

**Short Answer**

**Directions:** Respond to each statement on the lines provided.

**13. Review** the difference between distance and displacement.

\_\_\_\_\_  
\_\_\_\_\_

**14. Explain** the two ways in which the velocity of an object can change.

\_\_\_\_\_  
\_\_\_\_\_

**15. Tell** how you can use an object’s velocity and the time it takes to travel a certain distance to determine its acceleration.

\_\_\_\_\_  
\_\_\_\_\_

**Concept Application**

**Directions:** Respond to each statement on the lines provided. Use complete sentences.

**16. Describe** your school’s location using a reference point that is not on school grounds.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**17.** A friend tells you that to accelerate, an object must speed up quickly. **Determine** whether this statement is correct.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**18. Explain** what a speed-time graph can tell you about the motion of an object.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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