Chapter 12 Quiz

**Part A:** Modified True/False

Indicate whether the statement is true or false. If the statement is false, change the statement to make it true.

1. The slope on a position–time graph is equal to an object’s speed.

**Part B:** Matching

Match each feature on a position–time graph with its description.

2. horizontal line (a) increasing velocity

3. straight line slanting upward (b) zero velocity

4. straight line slanting downward (c) positive velocity

5. curved line (d) negative velocity

**Part C:** Multiple Choice

Circle the letter beside the answer that best answers the question.

6. What quantity is equal to the change in distance divided by the time interval of

motion?

A. average speed C. instantaneous speed

B. average velocity D. instantaneous velocity

7. What must be true in order for the magnitude of a moving object’s velocity to equal the speed of the object?

A. The velocity must be positive.

B. The speed must be increasing.

C. The object must be moving in a straight line.

D. The object must be moving opposite its original direction.

8. An object moves 8 km east, then 5 km west, then 3 km north. What is the object’s displacement?

A. about 1.5 km [E] C. about 4.2 km [NE]

B. about 3.1 km [NW] D. about 7.5 km [W]

9. An object moves 17 km west and then 29 km east. Its total travel time is 2 h.

What is its average velocity?

A. 6 km/h [E] C. 23 km/h [E]

B. 6 km/h [W] D. 23 km/h [W]

10. A person travels 2.5 h at an average speed of 64 km/h. She stops 1 h for lunch,

and then travels 3.5 h at an average speed of 86 km/h. What is her average speed

for the trip?

A. 66 km/h C. 75 km/h

B. 72 km/h D. 77 km/h

11. Find the velocity for the first 8 second and then the second 7 seconds. Which section is faster – how can you tell?

