Name Date Class

Directed Reading for Content Mastery

Section 1 ▪ What is motion?
Section 2 ▪ Acceleration

Directions: *Circle the term that correctly completes the sentence.*

1. A golfball's acceleration is +3 m/s^2. The ball is (speeding up, slowing down.)
2. An object's (speed, displacement) represents its distance and direction from its starting point.
3. A student walks 10 m in 2 s. Her average speed is (20 m/s, 5 m/s).
4. A plane moving at a rate of 400 km/h west has a different (velocity, speed) than a plane moving 400 km/h northwest.
5. During positive acceleration, an object's final speed is (greater, less) than its initial speed.
6. To calculate acceleration, first subtract the initial speed from the final speed. Then divide this difference by the (distance moved, time period).

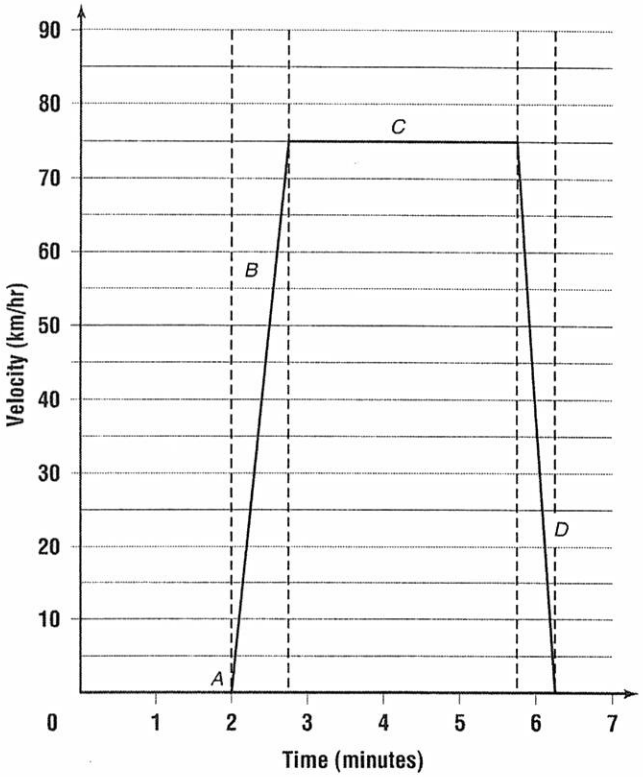
Directions: *The graph describes the movement of a car. Match the letters in the graph to the sentences below.*

_____ 7. The car moves at a constant speed.

_____ 8. The car sits motionless at a stoplight.

_____ 9. The car undergoes negative acceleration as it approaches a stoplight.

_____ 10. The car undergoes positive acceleration as it moves away from a stoplight.



Meeting Individual Needs

Name Date Class

SECTION 2 Reinforcement

Acceleration

Directions: *In the space provided, substitute a word for the word in italics to make the statement correct.*

_____ 1. *Velocity* is a change in an object's motion.

_____ 2. Acceleration is the rate of change of velocity with *distance.*

_____ 3. When an object slows down, it has *no* acceleration.

Directions: *Answer the following questions on the lines provided.*

4. A merry-go-round horse travels at a constant speed. Is it accelerating? Explain.

_____

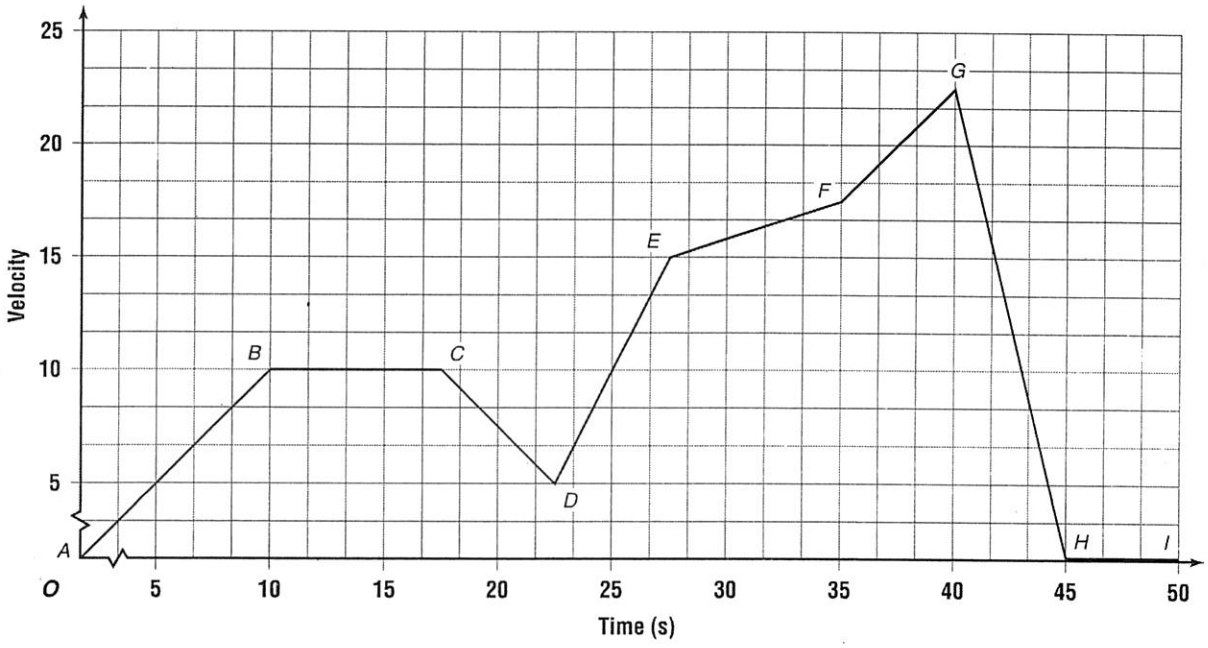
5. What is the unit for speed? For acceleration?

_____

6. If an object has an acceleration of $-3\ m/s^2$, describe its motion.

_____

Directions: *Study the velocity-time graph for an object in motion. Then answer the following questions.*



7. In what interval does the object have the fastest acceleration?

_____

8. Over what interval(s) does the object have a negative acceleration?

_____

9. Over what interval is the object stopped?

_____