Name Date Class

Chapter Review

Motion and Momentum

Part A. Vocabulary Review

Directions: *Write the terms that are defined below on the lines provided.*

1. When objects collide, the total initial momentum equals the total final momentum.

_____

2. the tendency of an object to resist change in its motion

_____

3 the rate of change of velocity

_____

4. the distance traveled divided by the time it takes to travel that specific distance

_____

5. a measure of how hard it is to stop an object

_____

6. speed plus direction

_____

7. the amount of matter in an object

_____

8. speed of an object at one instant of time

_____

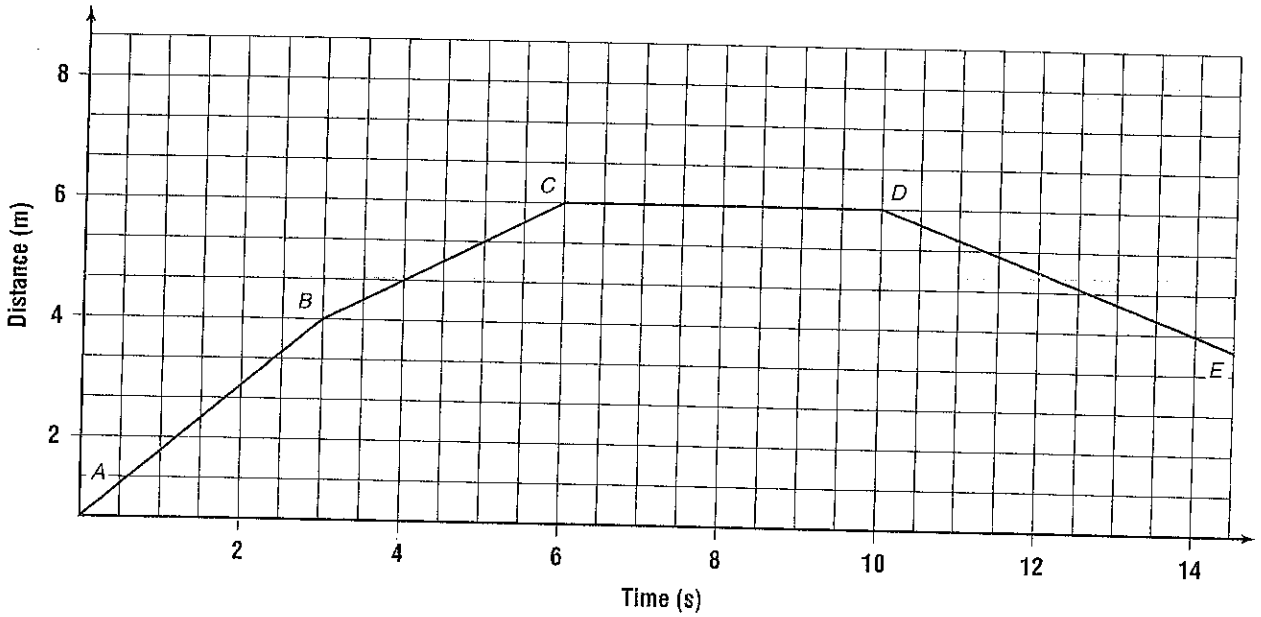
Part B. Concept Review

Directions: *Circle the terms that best complete the following statements.*

1. The momentum of a falling leaf is (greater than, less than, equal to) the momentum of a falling pinecone.
2. Two objects each have a mass of 70 kg. Their momentum is (equal, changing, unknown).
3. When two pool balls collide and move away from each other, they eventually stop. This is because of (momentum, friction, inertia).
4. A 50 kg object moves with a velocity of 10 m/s. Its momentum is (500 m/s^2, 5 kg m/s, 500 kg m/s).

Chapter Review (continued)

Directions: *The distance-time graph below describes the motion of an object. Use it to answer questions 5 through 8.*



5. Over which interval is the velocity greatest?

6. Over which intervals(s) is the velocity zero?

7. Over which interval(s) is the object accelerating?

8. What is the average velocity in m/s from A to B?

Directions: *Use the spaces below to calculate the answers to the following questions.*

9. The velocity of an object goes from 4 m/s to 12 m/s in 4 s. What is its acceleration?

10. A 600 g toy car moving at 3 m/s collides and hooks up with a 900 g toy car at rest and they move off together. What is their final velocity?

Assessment