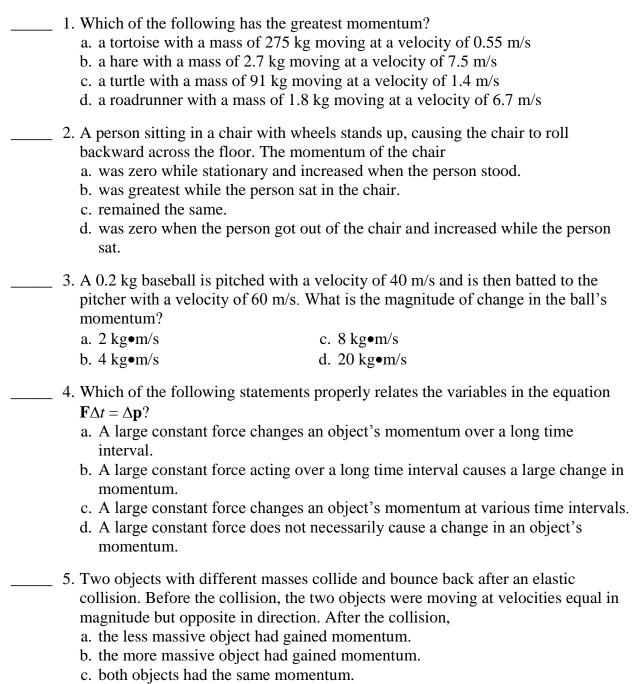
# **Momentum and Collisions**

d. both objects lost momentum.

### **Test Review**

#### **MULTIPLE CHOICE**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.



Chapter	Test B continued	
6		
7	<ul> <li>7. Which of the following statements about the conservation of momentum is <i>not</i> correct?</li> <li>a. Momentum is conserved for a system of objects pushing away from each other</li> <li>b. Momentum is not conserved for a system of objects in a head-on collision.</li> <li>c. Momentum is conserved when two or more interacting objects push away from each other.</li> <li>d. The total momentum of a system of interacting objects remains constant regardless of forces between the objects.</li> </ul>	
8	<ul><li>Two balls of dough collide and stice</li><li>a. elastice</li><li>b. perfectly elastice</li></ul>	ck together. Identify the type of collision. c. inelastic d. perfectly inelastic
9	<ul><li>Which of the following best describody collision if the kinetic energy</li><li>a. must be less</li><li>b. must also be conserved</li></ul>	bes the momentum of two bodies after a two- of the system is conserved? c. might also be conserved d. is doubled in value
SHORT A	ANSWER	
10. A base pitch-	eball pitcher's first pitch is a fastball	, moving at high speed. The pitcher's second moving more slowly. Which pitch is harder er in terms of momentum.
	ossible for a spaceship traveling with entum? Explain your answer.	n constant velocity to experience a change in

# Chapter Test B continued

12.	Each croquet ball in a set has a mass of 0.50 kg. The green ball travels at 10.5 m/s and strikes a stationary red ball. If the green ball stops moving, what is the final speed of the red ball after the collision?
13.	A moderate force will break an egg. Using the concepts of momentum, force, and time interval, explain why an egg is more likely to break when it is dropped on concrete than if it is dropped on grass.
14.	Why is the sound produced by a collision evidence that the collision is not perfectly elastic?
	OBLEM What velocity must a 1340 kg car have in order to have the same momentum as a 2680 kg truck traveling at a velocity of 15 m/s to the west?
16.	A $6.0 \times 10^{-2}$ kg tennis ball moves at a velocity of 12 m/s. The ball is struck by a racket, causing it to rebound in the opposite direction at a speed of 18 m/s. What is the change in the ball's momentum?

## Chapter Test B continued

