

SECTION
1-3 Changes in Velocity

(pages 21-25)

KEY CONCEPTS

▲ The rate of change in velocity is known as acceleration.

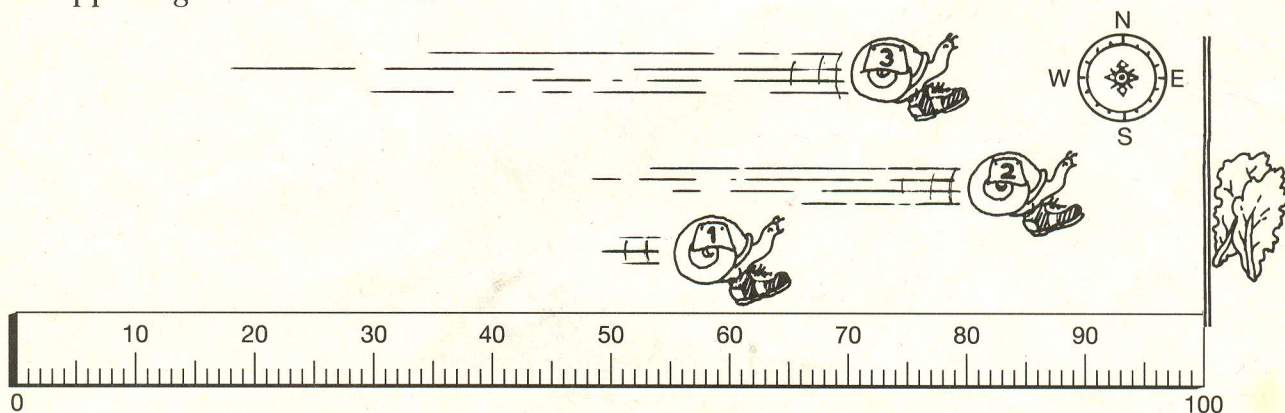
Building Vocabulary Skills: Understanding Definitions

Read each of the following statements. If a statement describes acceleration, write A before the item. If the statement does not describe acceleration, write N.

- _____ 1. Your pet dog runs around in circles, chasing his tail.
- _____ 2. A car slows down as it comes to a red light.
- _____ 3. You pedal your bicycle uphill at a speed of 5 km/hr.
- _____ 4. Your brother walks across the room to open the window.
- _____ 5. As you see your friend approaching, you jump up from your chair and run over to greet her.
- _____ 6. You begin to walk faster when you sense that someone is following you.

At a Snail's Pace: Applying the Main Ideas

In the last section, three snails began a race along a meterstick. When you last saw the snails, they had just completed 10 minutes of their race. Let's see what is happening to the snails now.



1. At 10:15 AM, Snail 1 crossed the 65-cm mark with a velocity of 4 cm/min. In a great burst of energy, Snail 1 raced to the 90-cm mark in 3 minutes. His velocity as he crossed the 90-cm mark was 7 cm/min. What was the acceleration of Snail 1?

2. Snail 2, the speedy snail, flew past the 90-cm mark at 10:15 AM with a velocity of 7 cm/min. Unfortunately, Snail 2 stubbed his foot on the meterstick and could only limp across the 93-cm mark 3 minutes later with a velocity of 1 cm/min. Calculate the acceleration of Snail 2.

3. Snail 3, trying to keep up with Snail 2, managed to get to the 80-cm mark at 10:15 AM with a velocity of 6 cm/min. Continuing his excellent effort, he crossed the finish line with a velocity of 7.2 cm/min and gobbled the lettuce leaves at exactly 10:18 AM. What was the acceleration of the winning snail?

