

Directed Reading B *continued*

9. One of the ways to express speed is by using the SI unit of _____.

10. Name two other units often used for expressing speed.

11. What is the equation for average speed?

12. Speed can be represented on a graph where _____ is plotted on the x -axis and position of the object is plotted on the y -axis.

13. In the graph in your book illustrating the speed of a dog walking beside a fence, why does the distance traveled in a given second vary?

VELOCITY: DIRECTION MATTERS

14. How could two birds flying at the same speed from the same starting point end up at different destinations?

15. What is the difference between velocity and speed?

16. What can change when an object's velocity changes?

ACCELERATION

17. Acceleration is the rate at which _____ changes over time.

18. The units of _____ are the units of velocity divided by a unit of time.

Directed Reading B *continued*

19. A common unit for acceleration is meters per second per _____.

20. An increase in speed is sometimes called _____ acceleration.

21. What are the two terms sometimes used to describe a decrease in speed?

22. Why is an object traveling in a circle considered to be accelerating?

23. The type of acceleration that occurs when an object travels at a constant speed in circular motion is called _____ acceleration.

24. Acceleration can be shown on a graph of speed versus _____.

25. In the graph in your book showing the acceleration of a radio-controlled toy car over 10 s, how can you tell acceleration is positive from 0 s to 5 s?

26. In the same figure, how can you tell that the speed of the radio-controlled car is constant between 5 s and 7 s?

