LESSON 3.4
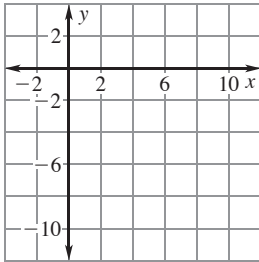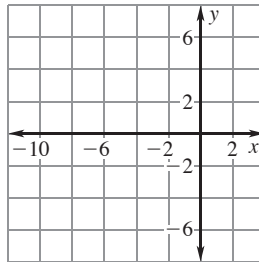
Practice C
For use with the lesson "Find Slope and Rate of Change"

Plot the points and draw a line through them. Without calculating, tell whether the slope of the line is *positive, negative, zero,* or *undefined*.
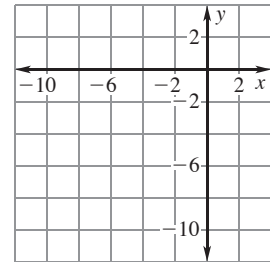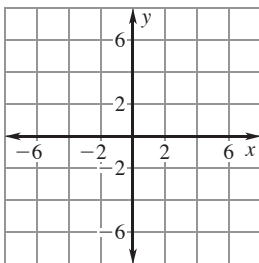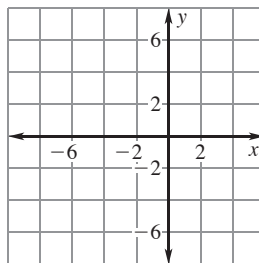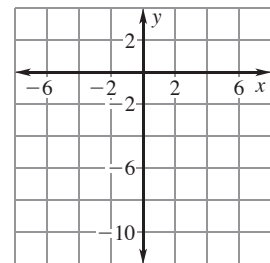
1. $(2, -5)$ and $(6, -9)$

2. $(-4, 5)$ and $(-4, -2)$

3. $(-6, -2)$ and $(-1, -8)$

4. $(5, 3)$ and $(-4, 3)$

5. $(-7, 2)$ and $(3, -2)$

6. $(6, -4)$ and $(-5, -8)$

Find the slope of the line that passes through the points.

7.

$(-9, 4)$
$(-6, -2)$

8.

$(-2, 8)$
$(10, -14)$

9.

$(-8, 3)$
$(4, -5)$

10.

$(4, 7)$
$(1, 3)$

11.

$(-4, 2)$
$(5, -1)$

12.

$(-5, 5)$ $(2, 5)$
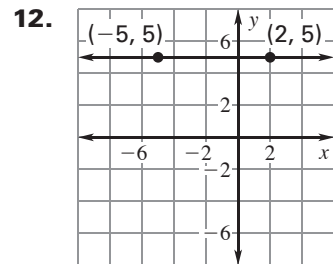
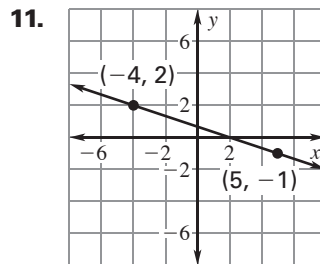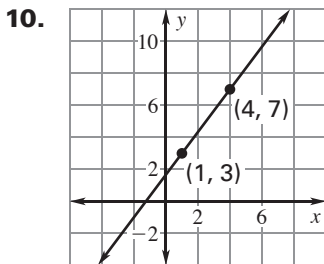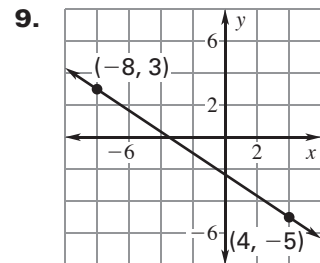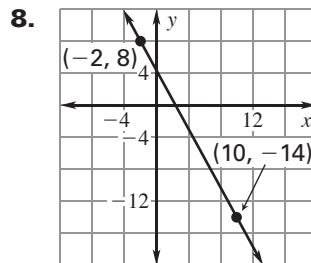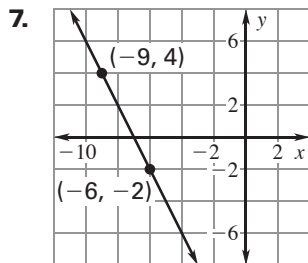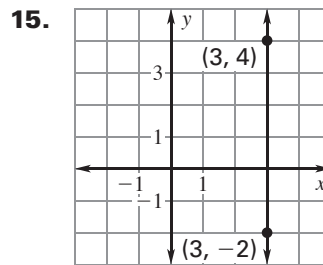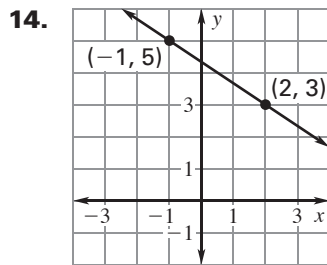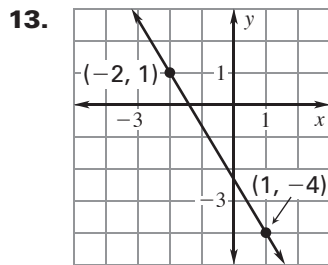**LESSON 3.4** **Practice C** *continued*
For use with the lesson "Find Slope and Rate of Change"

13.

14.

15.

Find the slope of the line that passes through the points.

16. $(3, 4)$ and $(8, 7)$

17. $(5, 5)$ and $(-2, 1)$

18. $(6, -1)$ and $\left(6, \dfrac{1}{2}\right)$

19. $(4, 2)$ and $(-6, 6)$

20. $(-3, 4)$ and $(4, 8)$

21. $(1, -9)$ and $(6, -5)$

22. $(2, -5)$ and $(5, -5)$

23. $(-8, -7)$ and $(-4, -2)$

24. $(-2, -6)$ and $(4, -5)$

Find the value of *x* or *y* so that the line passing through the two points has the given slope.

25. $(-3, y), (-9, -2); m = 1$

26. $(-2, 8), (x, 4); m = \dfrac{4}{5}$

27. $(7, 5), (1, y); m = -\dfrac{2}{3}$

28. $(x, 8), (2, -1); m = -3$

29. $(-1, 5), (-6, y); m = \dfrac{8}{5}$

30. $(-7, -1), (-2, y); m = -\dfrac{3}{5}$

31. **Biking** Every day, you ride your bike home from school. The graph shows the distance you are from home during your 20-minute bike ride.
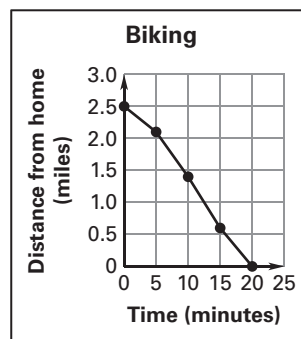
   a. Determine the time interval during which the distance from home showed the greatest rate of change.

   b. Determine the time interval during which the distance from home showed the least rate of change.

   c. Give a verbal description of your ride home.

32. **Fuel Consumption** The graph shows the fuel consumption (in miles per gallon) of cars and vans, pickups, and SUVs from 1990 to 2000.
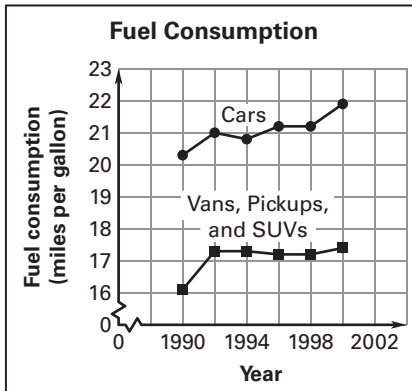
   a. During which two-year period did the fuel consumption of vans, pickups, and SUVs decrease the least?

   b. During which two-year period did the fuel consumption of cars increase the least?

   c. How did the fuel consumption for the types of vehicles change during the 10-year period? *Explain* your reasoning.