Name _____   Date _____
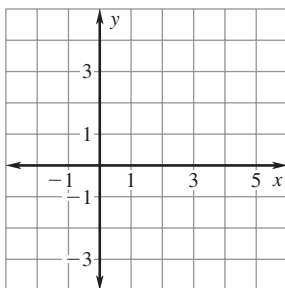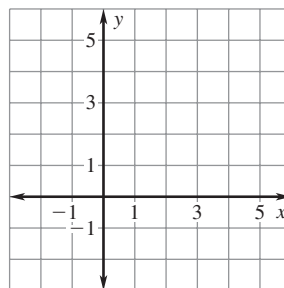
Practice B
For use with pages 334–342

Make a scatter plot of the data. Find the equation of the best-fitting line. Approximate the value of *y* for *x* = 3.
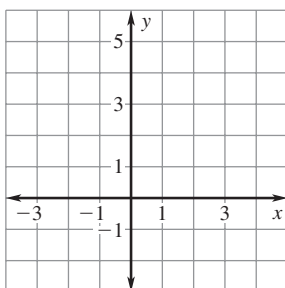
1.

x	−1	0	1	2	4
y	3	3	1	0	−3

2.

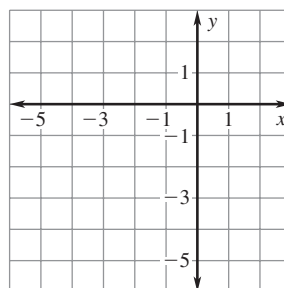| x	−1	0	1	2	4
y	−1	1	2	1	5

Make a scatter plot of the data. Find the equation of the best-fitting line. Approximate the value of *y* for *x* = 5.
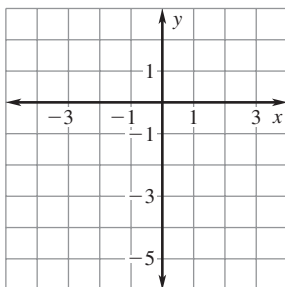
3.

x	−1	0	1	2	3
y	5	3	2	0	−2

4.

x	−5	−3	−1	1	2
y	−4	−2	−1	1	0

5.

x	−2	−1	0	1	2
y	−4	−2	−1	−1	1

6.

x	−1	0	1	2	3
y	−2	0	1	3	5

LESSON 5.7

Algebra 1
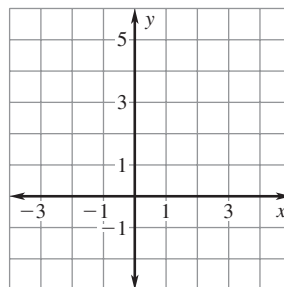
| LESSON 5.7 | **Practice B** *continued*
For use with pages 334–342 |

Find the zero of the function.

7. $f(x) = 16x - 4$ **8.** $f(x) = 2 - 4x$ **9.** $f(x) = 0.5x + 5$

10. $f(x) = -0.1x - 3$ **11.** $f(x) = \frac{3}{4}x - 3$ **12.** $f(x) = -\frac{2}{5}x + 4$

13. $f(x) = 0.25x + 0.5$ **14.** $f(x) = 9 - 0.7x$ **15.** $f(x) = 1.2x + 10$

16. $f(x) = \frac{1}{2}x - 6$ **17.** $f(x) = -\frac{2}{5}x - 4$ **18.** $f(x) = -0.8x + 15$

**19.** $f(x) = 1.25x - 5$ **20.** $f(x) = 6 - 0.2x$ **21.** $f(x) = 2.5x - 3$

22. Profit The table shows the monthly profit of a small company.

Month	January	February	March	April	May
Profit (dollars)	1200	1250	1400	1380	1450

a. Make a scatter plot of the data. Let x represent the number of months since January and let y represent the profit.

b. Find an equation that models the profit (in dollars) as a function of the number of months since January.

c. Approximate the profit in August.
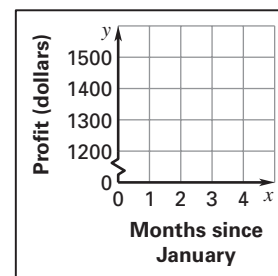
23. Escape Velocity The table shows several planet diameters and escape velocities. The escape velocity is the velocity at which an object has to travel in order to escape the effect of a planet's gravity.

Planet	Mercury	Uranus	Earth	Mars	Venus
Diameter (km)	4879	51,118	12,756	6794	12,104
Escape velocity (km/sec)	4.3	21.3	11.186	5.03	10.36

a. Make a scatter plot of the data. Let x represent the diameter of the planet and let y represent the escape velocity.

b. Find an equation that models the escape velocity (in kilometers per second) as a function of the diameter (in kilometers).

c. Approximate the escape velocity of Neptune, which has a diameter of 49,528 kilometers.