

LESSON
4.7

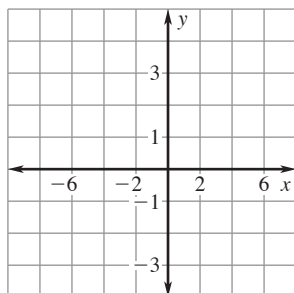
Practice A

For use with the lesson "Predict with Linear Models"

Create a scatter plot of the data.

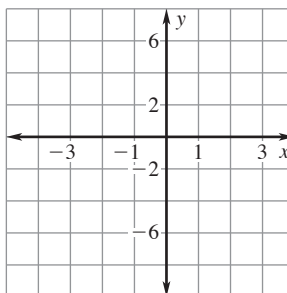
1.

x	-4	-2	0	2	4
y	2	1	0	-1	-1



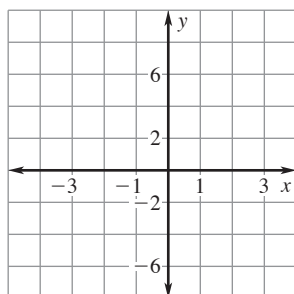
2.

x	-3	-2	-1	0	1
y	-8	-5	-2	1	4



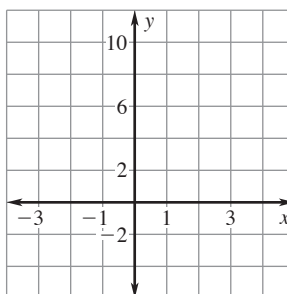
3.

x	-2	-1	0	1	2
y	-4	0	2	4	7

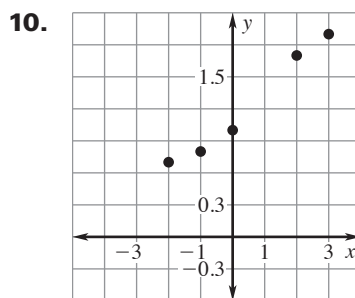
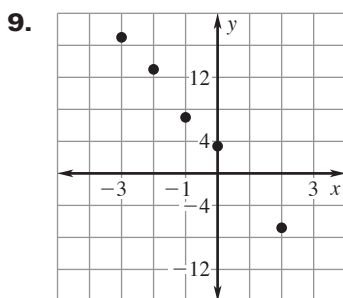
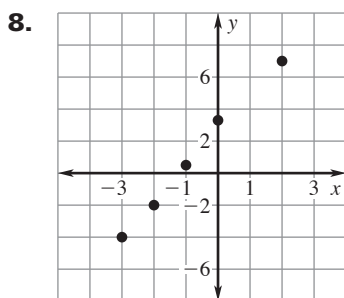
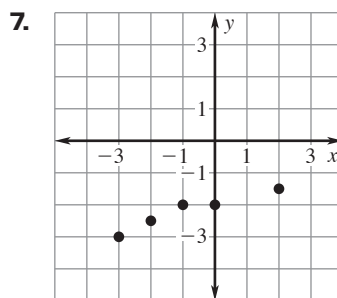
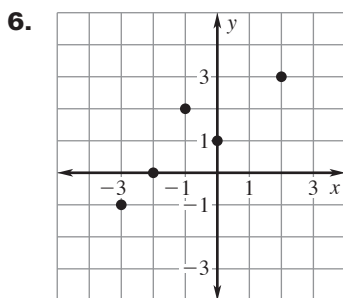
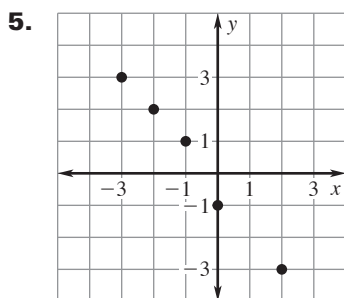


4.

x	-1	0	1	2	3
y	8	5	1	-3	-1



Find the equation of the best-fitting line. Approximate the value of y for $x = 1$.



LESSON
4.7
Practice A *continued*
For use with the lesson "Predict with Linear Models"
Determine whether the x -value is a zero of the function.

11. $f(x) = x - 5, x = -5$

12. $f(x) = 2x - 8, x = 4$

13. $f(x) = 24 - 3x, x = -8$

14. $f(x) = 3x + 6, x = -2$

15. $f(x) = 7x - 21, x = -3$

16. $f(x) = \frac{1}{2}x - 3, x = 6$

17. $f(x) = \frac{3}{4}x + 8, x = -\frac{32}{3}$

18. $f(x) = 6x - \frac{1}{4}, x = \frac{2}{3}$

19. $f(x) = 6 - 10x, x = 0.6$

20. $f(x) = 12x - 9, x = 0.8$

21. $f(x) = 2x + 15, x = 7.5$

22. $f(x) = 1.2 - 3x, x = 0.4$

23. $f(x) = \frac{2}{5}x + 2, x = -5$

24. $f(x) = 4x - \frac{5}{4}, x = \frac{5}{16}$

25. $f(x) = 1.6 + 4x, x = -0.4$

Find the zero of the function.

26. $f(x) = x + 10$

27. $f(x) = x - 15$

28. $f(x) = 8 - x$

29. $f(x) = -x - 3$

30. $f(x) = 3x + 9$

31. $f(x) = 12 - 6x$

32. $f(x) = 8x - 24$

33. $f(x) = 20x - 10$

34. $f(x) = \frac{3}{2}x + 3$

35. $f(x) = -\frac{1}{4}x + 8$

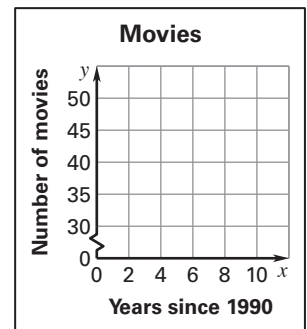
36. $f(x) = -7x - 21$

37. $f(x) = \frac{1}{2} - 5x$

38. **Movies** The table shows the number of movies that made at least \$20 million for different years.

Year	1990	1995	1998	1999	2000
Number of movies	30	36	37	42	49

- Make a scatter plot of the data. Let x represent the number of years since 1990 and let y represent the number of \$20 million movies.
- Find an equation that models the number of movies as a function of the number of years since 1990.



39. **Ice Cream** The table shows the cost of a half-gallon of ice cream from 1997 to 2001.

Year	1997	1998	1999	2000	2001
Cost (dollars)	3.02	3.30	3.40	3.66	3.84

- Make a scatter plot of the data. Let x represent the number of years since 1997 and let y represent the cost of a half-gallon of ice cream.
- Find an equation that models the cost (in dollars) of a half-gallon of ice cream as a function of the number of years since 1997.
- Approximate the cost of a half-gallon of ice cream in 2002.

