

30. $f(x) = x^2 + 1$

31. $f(x) = 5$

32. $f(x) = \frac{1}{x+1}$

33. $f(x) = 3 - 5x + 4x^2$

34. $f(x) = x^3$

35–52 ■ Find the domain of the function.

35. $f(x) = 2x$

36. $f(x) = x^2 + 1$

37. $f(x) = 2x, -1 \leq x \leq 5$

38. $f(x) = x^2 + 1, 0 \leq x \leq 5$

39. $f(x) = \frac{1}{x-3}$

40. $f(x) = \frac{1}{3x-6}$

41. $f(x) = \frac{x+2}{x^2-1}$

42. $f(x) = \frac{x^4}{x^2+x-6}$

43. $f(x) = \sqrt{x-5}$

44. $f(x) = \sqrt[4]{x+9}$

45. $f(t) = \sqrt[3]{t-1}$

46. $g(x) = \sqrt{7-3x}$

47. $h(x) = \sqrt{2x-5}$

48. $G(x) = \sqrt{x^2-9}$

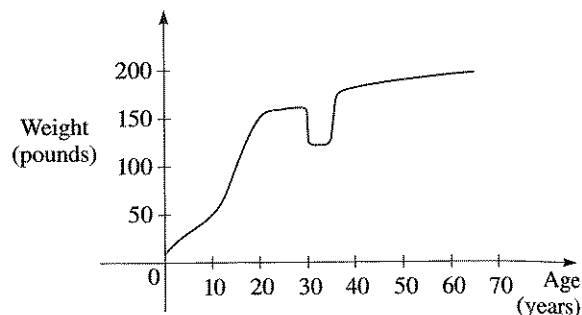
49. $g(x) = \frac{\sqrt{2+x}}{3-x}$

50. $g(x) = \frac{\sqrt{x}}{2x^2+x-1}$

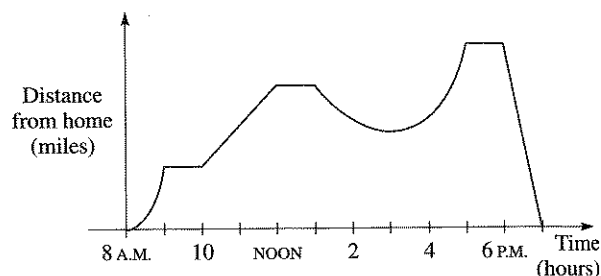
51. $g(x) = \sqrt[4]{x^2-6x}$

52. $g(x) = \sqrt{x^2-2x-8}$

53. The graph gives the weight of a certain person as a function of age. Describe in words how this person's weight has varied over time. What do you think happened when this person was 30 years old?



54. The graph gives a salesman's distance from his home as a function of time on a certain day. Describe in words what the graph indicates about his travels on this day.



55. You put some ice cubes in a glass, fill the glass with cold water, and then let the glass sit on a table. Sketch a rough graph of the temperature of the water as a function of the elapsed time.
56. A home owner mows the lawn every Wednesday afternoon. Sketch a rough graph of the height of the grass as a function of time over the course of a four-week period beginning on a Sunday.
57. When a football is kicked from a tee, its height depends on the time elapsed since the kickoff. Sketch a rough graph of the height of the football as a function of time.
58. Sketch a rough graph of the number of hours of daylight as a function of the time of year in the Northern Hemisphere.
59. The number of Christmas cards sold by a greeting-card store depends on the time of year. Sketch a rough graph of