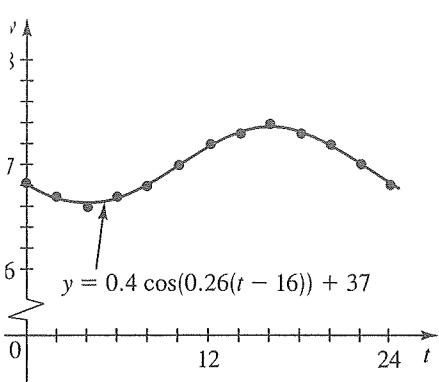


SECTION 6.1 ■ PAGE 440

$$y = 0.52(t - 6) + 62.9$$

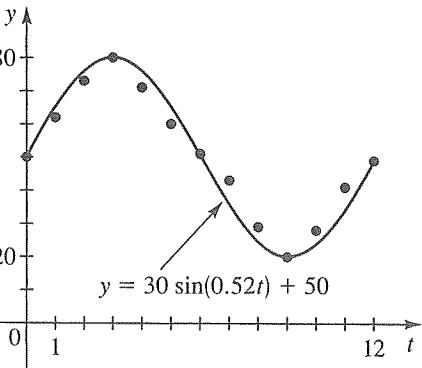
$y = 0.52(t - 6) + 62.9$, where y is temperature ($^{\circ}\text{F}$)
January = 0

$$y = 0.48t - 1.36 + 62.2$$

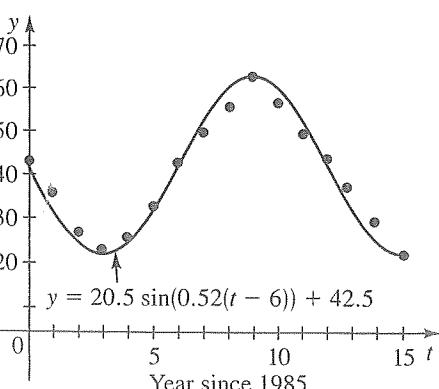


$y = 0.26(t - 16) + 37$, where y is the body
and t is hours since midnight

$$y = 0.26t - 2.62 + 37.0$$

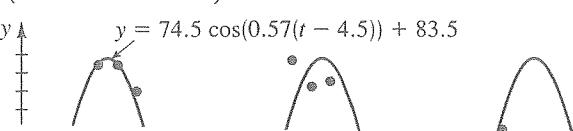


$y = 0.52t + 50$ where y is the owl population in year t
 $y = 0.52t - 0.02 + 50.6$



$y = 0.52(t - 6) + 42.5$, where y is the salmon
population (in thousands), and t is years since 1985

$$y = 0.52t + 3.11 + 42.4$$



1. (a) arc, 1 (b) $\pi/180$ (c) $180/\pi$ 2. (a) $r\pi$
3. $2\pi/5 \approx 1.257$ rad 4. $3\pi/10 \approx 0.942$ rad
5. $-\pi/4 \approx -0.785$ rad 6. $-\pi/3 \approx -1.047$ rad
7. $-5\pi/12 \approx -1.309$ rad 8. $-5\pi/3 \approx -5.236$ rad
9. $6\pi \approx 18.850$ rad 10. $22\pi \approx 69.115$ rad
11. $8\pi/15 \approx 1.676$ rad 12. $\pi/12 \approx 0.262$ rad
13. $\pi/24 \approx 0.131$ rad 14. $9\pi/8 \approx 3.534$ rad
15. 210° 16. 660° 17. -225° 18. -270°
19. $540/\pi \approx 171.9^\circ$ 20. $-360/\pi \approx 114.6^\circ$
21. $-216/\pi \approx -68.8^\circ$ 22. $612/\pi \approx 194.8^\circ$
23. 18° 24. 50° 25. -24° 26. -195°
27. $410^\circ, 770^\circ, -310^\circ, -670^\circ$
28. $495^\circ, 855^\circ, -225^\circ, -585^\circ$
29. $11\pi/4, 19\pi/4, -5\pi/4, -13\pi/4$
30. $23\pi/6, 35\pi/6, -\pi/6, -13\pi/6$
31. $7\pi/4, 15\pi/4, -9\pi/4, -17\pi/4$
32. $315^\circ, 675^\circ, -405^\circ, -765^\circ$ 33. Yes
34. Yes 35. Yes 36. No 37. Yes
38. No 39. 13° 40. 1° 41. 30°
42. 260° 43. 280° 44. 190° 45. $5\pi/6$
46. $5\pi/3$ 47. π 48. $10 - 2\pi \approx 3.717$ rad
49. $\pi/4$ 50. $3\pi/2$ 51. $55\pi/9 \approx 19.2$
52. $360/\pi \approx 114.6^\circ$ 53. 4 54. $5\pi/2 \approx 7.85$
55. 4 mi 56. $216/\pi \approx 68.8^\circ, 1.2$ rad
57. $2 \text{ rad} \approx 114.6^\circ$ 58. 6.88 ft 59. $36/\pi \approx$
60. $16/(3\pi) \approx 1.698$ ft 61. (a) 35.45 (b) 25
62. (a) 5.855 (b) 3.028 63. 50 m^2
64. 4.7 mi^2 65. 4 m 66. 57.3° 67. 6 cm^2
68. $\pi/4 \text{ ft}^2$ 69. 13.9 mi 70. 672 71. 330π
72. $110\pi \text{ mi} \approx 346 \text{ mi}$ 73. 1.6 million mi
74. 3979 mi, 25,000 mi 75. 1.15 mi
76. $70,000\pi \approx 219,911 \text{ ft}^2$ 77. $360\pi \text{ in}^2 \approx 1$
78. $3750\pi \text{ ft}^2 \approx 11,781 \text{ ft}^2$ 79. (a) $90\pi \text{ rad/min}$
(b) $1440\pi \text{ in./min} \approx 4523.9 \text{ in./min}$
80. (a) $2000\pi \text{ rad/min}$ (b) $50\pi/3 \text{ ft/s} \approx 52.4$
81. $32\pi/15 \text{ ft/s} \approx 6.7 \text{ ft/s}$ 82. 39.3 mi/h 83
84. (a) 1100 rad/min (b) 175 85. 2.1 m/s
86. (a) 160 rad/min (b) $2080\pi \text{ ft/min} \approx 74.$
87. (a) $10\pi \text{ cm} \approx 31.4 \text{ cm}$ (b) 5 cm (c) 3
(d) 86.8 cm^3
88. (b) 100 (c) 5.13 r

