

ANSWERS FOR 5.3

For use with pages 267–270

5.3 Guided Practice

2. *Sample answer:* The product property says that the square root of a product equals the product of the square roots. The quotient property says that the square root of a quotient equals the quotient of the square roots.

4. 7 6. $3\sqrt{5}$

8. $\frac{4}{5}$ 10. $\frac{\sqrt{5}}{3}$

12. ± 8 14. ± 2

16. $\pm \sqrt{10} + 1$

18. $h = -16t^2 + 50; \approx 1.6$ sec

5.3 Practice and Applications

20. $4\sqrt{3}$ 22. $2\sqrt{13}$

24. $5\sqrt{7}$ 26. $11\sqrt{5}$

28. 4 30. 180

32. $2\sqrt{15}$ 34. 12

36. $\frac{2}{7}$ 38. $\frac{10}{9}$

40. $\frac{\sqrt{11}}{8}$ 42. $\frac{2\sqrt{10}}{13}$

44. $\frac{5\sqrt{17}}{17}$

46. $\frac{12\sqrt{11}}{11}$

48. $\frac{3\sqrt{26}}{13}$

50. $\frac{2\sqrt{35}}{7}$

52. $\pm 3\sqrt{10}$

54. $\pm 3\sqrt{2}$

56. $\pm \frac{\sqrt{15}}{5}$

58. $\pm 4\sqrt{5}$

60. 1, 5

62. $-2 - \sqrt{6}, -2 + \sqrt{6}$

64. $\frac{3\sqrt{2}}{4} - 4, -\frac{3\sqrt{2}}{4} - 4$

66. $8 + 2\sqrt{7}, 8 - 2\sqrt{7}$

68. $-1 + 3\sqrt{11}, -1 - 3\sqrt{11}$

70. a. $h = -16t^2 + 20$

b. 1.1 sec

72. ≈ 28.1 knots

74. a. about 88.4 mi/h

b. No; *Sample answer:* When $P = 40$ lb/ft², speed is 125 mi/h which is not $2 \cdot 88.4$.

c. *Sample answer:* The wind speed value is squared in the formula and squaring increases the pressure value quickly.

ANSWERS FOR 5.3 (CONT.)

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5.3 Mixed Review

76. (2, 3) 78. (-1, 4)

80. (4, 0) 82. $\begin{bmatrix} 1 & -5 \\ 18 & 0 \end{bmatrix}$

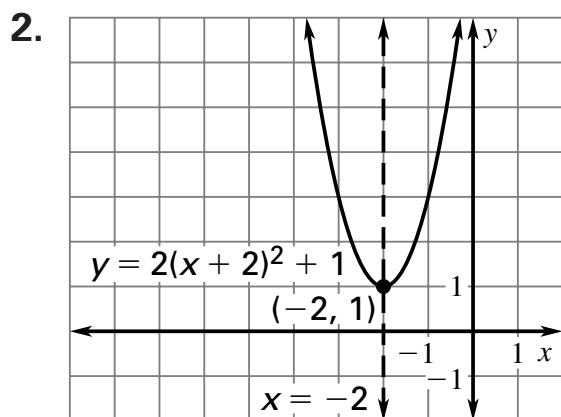
84. $\begin{bmatrix} 12 & -20 & 4 \\ -16 & 16 & -32 \end{bmatrix}$

86. $y = x^2 + 3x - 10$

88. $y = 2x^2 + 15x + 28$

90. $y = x^2 - 6x + 10$

Quiz 1



4. -3; 9

6. $\frac{1}{2}$

8. $14\sqrt{5}$

10. $\frac{2\sqrt{3}}{3}$

Math and History

2. $y = 0.1542x^2 - 0.3084$

