Answers for 9.1

For use with pages 434–436

9.1 Practice and Problem Solving

16. 10 **18.** -30

20. 4 **22.** 7

24. 6.6 **26.** -78.8

28. ± 9 **30.** ± 11

32. ± 20 **34.** 8.9 mi

36. ± 8.19 **38.** ± 16.37

40. ± 14 **42.** 6

44. ± 0.9 **46.** ± 1.1

48. 79.1 yd; 316.4 yd

50. 2 **52.** $\frac{4}{5}$ **54.** $\frac{9}{10}$

56. 0.6, 0.06, 0.006, 0.0006; each number is 0.1 times the previous number; 0.00006

9.1 Mixed Review

58. 5 rides

60. complementary

62. supplementary

64. $-1\frac{1}{4}$ **66.** $2\frac{19}{20}$

9.1 Test-Taking Practice

68. B

Answers for 9.2

For use with pages 439–441

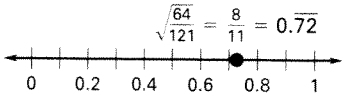
9.2 Practice and Problem Solving

10, 12. Sample explanations are given.

10. Rational; 144 is a perfect square, because $12^2 = 144$.

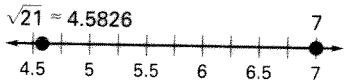
12. Rational; 0.30311 terminates.

14.



$\sqrt{\frac{64}{121}} = \frac{8}{11}$

16.



$\sqrt{21} < 7$

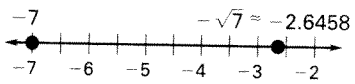
18. $0.\overline{131}$, $0.\overline{13}$, 0.133, $0.1\overline{3}$

20. $\sqrt{11}$; irrational

22. $\sqrt{36} = 6$; rational

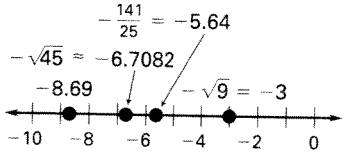
24. 4.5 in.; 20 stencils

26.



$-7 < -\sqrt{7}$

28.



30. -9, $\sqrt{81}$, 10.3, $\sqrt{220}$

32. $\frac{2}{5}$, 1.02, $\sqrt{1.25}$, $\sqrt{2.5}$

34. No. *Sample Answer:* The decimal shown on the calculator screen could terminate at a higher level of accuracy, or there might be a repeating pattern in the decimal that takes more decimal places to identify than are shown.

36. about 0.8 mi/h

9.2 Mixed Review

38. $4d^3$ **40.** $\frac{1}{n^2}$

42. $3b^5$ **44.** $\frac{24}{r^8}$

46. reflection: $(x, y) \rightarrow (x, -y)$

48. 180 cm

9.2 Test-Taking Practice

50. H

Answers for 9.3

For use with pages 445–447

9.3 Practice and Problem Solving

12. 96 m **14.** 120 cm

16. 30 in. **18.** no

20. The 8 foot dimension is the hypotenuse, not a leg, so it should be substituted for c in the formula, not for b. This gives $6^2 + b^2 = 8^2$, $36 + b^2 = 64$, $b^2 = 28$, $b \approx 5.3$.

22. 28.47 cm

24. 2.26 ft

26. yes **28.** yes

30. 22.0 m **32.** 65.6

34. 6 **36.** 3

9.3 Mixed Review

38. 115°

9.3 Test-Taking Practice

40. C

Answers for 9.4

For use with pages 452–453

9.4 Practice and Problem Solving

6. 13 cm; 30 cm^2, 30 cm

8. 4 km; 8.4 km^2, 14 km

10. 598.5 yd; 17,955 yd^2, 1260 yd

12. no **14.** yes

16. Row 2: 10, 24, 26; 14, 48, 50; Row 3: 9, 12, 15; 15, 36, 39; 21, 72, 75; Row 4: 30, 40, 50; 50, 120, 130; 70, 240, 250; yes. *Sample Answer:* Multiplying each number in a triple by the same number is equivalent to multiplying each side of the equation in the Pythagorean theorem by the same number.

18. about 21 in.

20. 555 ft **22.** 33 mi

24. 72 ft^2

9.4 Mixed Review

26. 3 **28.** -25

9.4 Test-Taking Practice

30. 6 square units; 11.2 units