Chapter 10 Review Exercise Answers

1. product **2.** discriminant **3.** Pythagorean **4.** denominator

5. $x = -3, 5$

6. $w = \frac{2}{3}, -2$

7. $x = 0, \frac{-4}{7}$

8. $x = 7, -7$

9. $x = 0, -6$

10. $p = -3, -60$

11. $x = -2, 12$

12. $x = \frac{3}{2}$

13. $w = \frac{1}{4}, \frac{-5}{2}$

14. $x = -9, 5$

15. $y = 5$

16. $w = 9, -9$

17. $m = -2, -14$

18. $x = 3, \frac{-3}{2}$

19. $w = 2, 4$

20. $m = \frac{5}{2}, 2$

21. $D = 36$; two solutions

22. $D = 0$; one solution

23. $D = -47$ no solutions

24. $D = 21$; two solutions

25. $x = -2, -3$

26. $x = 3 \pm \sqrt{3}$

27. $x = -2 \pm \frac{\sqrt{10}}{2}$

28. No solution

29. $w = 3 \pm \sqrt{10}$

30. $y = 3$

31. No solution

32. $x = \frac{-3}{2}$

33. The width is $4\frac{1}{2}$ yards (or $\frac{9}{2}$ yards) and the length is 10 yards.

33. The width is 3 feet and the length is 10 feet.

35. The legs of the triangle are 5 meters and 6 meters.

36. The legs of the triangle are 4 feet and 10 feet.

37. The lengths of the sides are 9 feet, 12 feet, and 15 feet.

38. The lengths of the sides are 5 inches, 12 inches, and 13 inches.

39. a) At $\frac{1}{2}$ second, the baseball is 132 feet above the ground.

b) At 1 second, the baseball is 160 feet above the ground.

c) At 2 seconds, the baseball is 112 feet above the ground.

40. The baseball hit the ground in 6 seconds.

41. $x \neq -2, 2$ **42.** $x \neq 6, -5$ **43.** $x = 5, -2$ **44.** $x = -2$

45. $x = -1, 6$ **46.** $x = 3, -1$ **47.** $x = 2$ (only)   **48.** $x = -3$ (only)

49. Miles can tie 9 knots in 20 minutes.

50. It will take Jim's crew 4 days to fill the bin again.

51. Together, Randall and Ke-Shawn can plow the cornfield in 4 hours.

52. It would take Jake 45 minutes to clean a Hilton pool by himself.

53. The right side hose could fill the pool in 6 hours, and the left side hose could fill the pool in 12 hours

54. Luigi takes 40 minutes to clean the store, and Mario takes 120 minutes (2 hours) to clean the store.

Please contact your instructor if you find any errors. Thanks!