

Solving Quadratics Practice Set

Solve by factoring

34. $x^2 + x - 30 = 0$

37. $2x^2 + 7x - 4 = 0$

40. $3x^2 - 8x + 5 = 0$

43. $25x^2 = 16$

45. $8x^2 + 5x - 4 = 2x^2 - 8x + 1$

35. $x^2 + 10x + 9 = 0$

38. $3x^2 + 8x - 3 = 0$

41. $25x^2 + 20x + 4 = 0$

44. $2x^2 - x = 21$

36. $x^2 - 12x + 32 = 0$

39. $5x^2 + 3x - 2 = 0$

42. $49x^2 - 14x + 1 = 0$

Answer Key

35. $-9, -1$ 36. $4, 8$ 37. $-4, \frac{1}{2}$ 38. $-3, \frac{1}{3}$

39. $-1, \frac{2}{5}$ 40. $1, \frac{5}{3}$ 41. $-\frac{2}{5}$ 42. $\frac{1}{7}$ 43. $-\frac{4}{5}, \frac{4}{5}$

44. $-3, \frac{7}{2}$ 45. $-\frac{5}{2}, \frac{1}{3}$ 46. $\frac{1}{2}$ ft 47. \$2.65

Solve with the square root method

10. $x^2 = 324$

13. $3x^2 - 100 = 332$

16. $x^2 + 1 = 3x^2 - 13$

19. $2(x + 3)^2 = 8$

22. $(2x - 3)^2 = 25$

11. $x^2 - 81 = 0$

14. $\frac{2}{3}x^2 - 8 = 16$

17. $2(x^2 + 4) = 10$

20. $3(x - 2)^2 + 4 = 52$

23. $\frac{1}{2}(x - 4)^2 = 8$

12. $5x^2 - 180 = 0$

15. $\frac{1}{2}x^2 - 5 = 5$

18. $3(x^2 - 1) = 9$

21. $(3x + 1)^2 - 36 = 0$

24. $\frac{1}{4}(x + 1)^2 - 16 = 0$

Answer Key

10. $-18, 18$ 11. $-9, 9$ 12. $-6, 6$

13. $-12, 12$ 14. $-6, 6$ 15. $-2\sqrt{5}, 2\sqrt{5}$

16. $-\sqrt{7}, \sqrt{7}$ 17. $-1, 1$ 18. $-2, 2$

19. $-5, -1$ 20. $-2, 6$ 21. $-\frac{7}{3}, \frac{5}{3}$ 22. $-1, 4$

23. $0, 8$ 24. $-9, 7$ 25. 2.5 seconds; ≈ 3.54