

EXERCISES

Solve each equation.

1. $x^2 = 49$

2. $x^2 = 81$

3. $x^2 = 121$

4. $x^2 = 8$

5. $a^2 = 24$

6. $x^2 = 48$

7. $x^2 = -49$

8. $x^2 = -8$

9. $x^2 = -121$

10. $x^2 - 64 = 0$

11. $x^2 - 16 = 0$

12. $x^2 + 16 = 0$

13. $x^2 - 144 = 0$

14. $m^2 - 25 = 0$

15. $x^2 + 4 = 0$

16. $a^2 - 100 = 0$

17. $x^2 - 32 = 0$

18. $y^2 - 72 = 0$

19. $x^2 - 28 = 0$

20. $x^2 - 150 = 0$

21. $2x^2 - 50 = 0$

22. $3x^2 - 48 = 0$

23. $4x^2 - 9 = 0$

24. $9x^2 - 4 = 0$

25. $(x - 2)^2 = 16$

26. $(x + 4)^2 = 25$

27. $x^2 + 4x + 4 = 9$

28. $x^2 - 4x + 4 = 36$

29. $x^3 = 8$

30. $x^3 = -8$

31. $64x^3 - 27 = 0$

32. $x^4 = 16$

33. $81x^4 - 16 = 0$

Solve each radical equation.

34. $\sqrt{x} = 6$

35. $\sqrt{x} = 8$

36. $\sqrt{x} = -7$

37. $\sqrt{2x} = 4$

38. $\sqrt{3x} = 5$

39. $3\sqrt{x} = 12$

40. $5\sqrt{4x} = 20$

41. $\sqrt{a} + 7 = 9$

42. $\sqrt{x} - 9 = 0$

43. $\sqrt{x+4} - 9 = 0$

44. $\sqrt{x+1} = 3$

45. $\sqrt{2x+3} = 5$

46. $\sqrt{10-x} = 1$

47. $\sqrt{4x-3} = 5$

48. $\sqrt{6-p} = p$

49. $\sqrt{x^2 + 72} = 3x$

50. $\sqrt{x^2 + 24} = 2x$

51. $\sqrt{x+11} = x-1$

52. $\sqrt{x^2 + 5x - 2} = x$

53. $\sqrt{x^2 - 8x} = 3$

54. $\sqrt{x^2 + 6x} = 4$

55. $\sqrt[3]{a} - 4 = 0$

56. $\sqrt[3]{a-4} = 4$

57. $\sqrt[4]{2a-4} = 2$

58. The square root of two times a number is 6. Find the number.

59. When a number is subtracted from the square root of 2 subtracted from three times the number, the result is 0. Find the number.

60. Find the length of one side of a square field whose area is $50 m^2$.61. In a rectangle, the length is twice as long as the width. The area is $242 cm^2$. Find its length and width.62. The distance d in feet that an object falls in t seconds is given by the formula $d = 16t^2$. How long does it take an object falling from rest to travel 1,024 feet?