



Practice and Problem-Solving Exercises

A Practice

Solve each equation. Check your answer.

◀ See Problem 1.

10. $7 - y - y = -1$

11. $72 + 4 - 14d = 36$

12. $13 = 5 + 3b - 13$

13. $6p - 2 - 3p = 16$

14. $x + 2 + x = 22$

15. $b - 9 + 6b = 30$

16. $9t - 6 - 6t = 6$

17. $17 = p - 3 - 3p$

18. $-23 = -2a - 10 + a$

Write an equation to model each situation. Then solve the equation.

◀ See Problem 2.

19. **Employment** You have a part-time job. You work for 3 h on Friday and 6 h on Saturday. You also receive an allowance of \$20 per week. You earn \$92 per week. How much do you earn per hour at your part-time job?

20. **Travel** A family buys airline tickets online. Each ticket costs \$167. The family buys travel insurance with each ticket that costs \$19 per ticket. The Web site charges a fee of \$16 for the entire purchase. The family is charged a total of \$1132. How many tickets did the family buy?

Solve each equation. Check your answer.

◀ See Problem 3.

21. $64 = 8(r + 2)$

22. $5(2x - 3) = 15$

23. $5(2 + 4z) = 85$

24. $2(8 + 4c) = 32$

25. $7(f - 1) = 45$

26. $15 = -2(2t - 1)$

27. $26 = 6(5 - 4f)$

28. $n + 5(n - 1) = 7$

29. $-4(r + 6) = -63$

Solve each equation. Choose the method you prefer to use. Check your answer.

◀ See Problem 4.

30. $\frac{b}{13} - \frac{3b}{13} = \frac{8}{13}$

31. $5y - \frac{3}{5} = \frac{4}{5}$

32. $\frac{n}{5} - \frac{3n}{10} = \frac{1}{5}$

33. $\frac{2}{3} + \frac{3m}{5} = \frac{31}{15}$

34. $\frac{n}{2} - \frac{2n}{16} = \frac{3}{8}$

35. $\frac{b}{3} + \frac{1}{8} = 19$

36. $\frac{1}{4} + \frac{4x}{5} = \frac{11}{20}$

37. $\frac{11z}{16} + \frac{7z}{8} = \frac{5}{16}$

38. $\frac{x}{3} - \frac{7x}{12} = \frac{2}{3}$

Solve each equation. Check your answer.

◀ See Problem 5.

39. $1.06g - 3 = 0.71$

40. $0.11k + 1.5 = 2.49$

41. $1.025v + 2.458 = 7.583$

42. $1.12 + 1.25g = 8.62$

43. $25.24 = 5g + 3.89$

44. $0.25n + 0.1n = 9.8$

B Apply

Solve each equation.

45. $6 + \frac{v}{-8} = \frac{4}{7}$

46. $\frac{2}{3}(c - 18) = 7$

47. $3d + d - 7 = \frac{25}{4}$

48. $0.25(d - 12) = 4$

49. $8n - (2n - 3) = 12$

50. $\frac{2}{3} + n + 6 = \frac{3}{4}$

51. $0.5d - 3d + 5 = 0$

52. $-(w + 5) = -14$

53. $\frac{a}{20} + \frac{4}{15} = \frac{9}{15}$