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Chapter 1 Cumulative Review (continued)

In Exercises 38–43, solve the equation. Check your solution.

38. $\frac{3}{4} + x = \frac{5}{4}$

39. $-\frac{2}{3}w = 14$

40. $w \div (-4) = -0.9$

41. $3.4 = r - 1.2$

42. $3\pi + a = 8\pi$

43. $7\pi x = -105\pi$

In Exercises 44–47, write and solve an equation to answer the question.

44. You have \$437 in a savings account. After a deposit, the balance is \$1087. What was the amount of the deposit?

45. At a restaurant, you and four friends divide the bill evenly. Each person pays \$7.35. How much is the total bill?

46. How many packages of mechanical pencils can you buy with \$45.30 when one package costs \$7.55?

47. You are selling candy bars for a fundraiser at school. You sell $\frac{1}{5}$ of the candy bars on the first day. You have 40 candy bars left. How many candy bars did you start with?

In Exercises 48–59, solve the equation. Check your solution.

48. $18x - 14 = -14$

49. $3g + 5 = 20$

50. $13 = 7 - w$

51. $3 = \frac{c}{5} + 2$

52. $\frac{x}{7} - 10 = -8$

53. $\frac{z + 2}{3} = 6$

54. $\frac{t - 4}{7} = 2$

55. $7w + 6w = 26$

56. $24 = 11u - 5u$

57. $0 = \frac{y}{4} - 3$

58. $8x - 3 - 2x = 21$

59. $7q + 5q - 17 = -5$

In Exercises 60–62, write and solve an equation to answer the question.

60. A mechanic charges \$43 per hour for labor and \$217 for parts. The total bill is \$432. How many hours did the mechanic work?

61. There are 158 students on a field trip. Five students traveled in cars and the rest traveled in three full buses. How many students traveled in one bus?

62. A basketball team sells boxes of candy bars to raise money for new basketball hoops. The teachers buy six boxes to eat in the teachers' lounge. The students sell an additional 540 candy bars. The team sells a total of 810 candy bars. How many candy bars are in each box?

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Chapter 1 Cumulative Review (continued)

In Exercises 63–78, solve the equation. Check your solution.

63. $24 - 8x = 4x$

64. $34 - 6t = 11t$

65. $7h - 12 = 3h + 24$

66. $8r + 30 = -2 - 8r$

67. $-2w + 7 = 9w - 4$

68. $5b - 14 = 8b + 4$

69. $h - 1 = 5h + 3h - 8$

70. $8k - 14 - 3k = 7k + 4 + k$

71. $60 = 4(-6r - 3)$

72. $3(x + 2) = 2(x - 9)$

73. $2(4g - 1) = 3(g + 6)$

74. $\frac{1}{3}(6t + 12) = -3(2t - 4)$

75. $-3(2y - 5) = -7(y - 2)$

76. $\frac{4}{5}(10y - 10) = \frac{2}{7}(7y + 14)$

77. $2(3x + 1) = 3(x + 6) - x$

78. $x + 3(x + 1) = -3(x - 8)$

79. You and your friend start running toward each other. The equation $47m = 200 - 53m$ represents the number of m minutes until you and your friend meet. When will you meet?

80. Gym A charges a \$50 membership fee and \$20 per month. Gym B charges a \$10 membership fee and \$30 per month. After how many months is the total cost the same at both gyms?

In Exercises 81–86, solve the equation. Determine whether the equation has *one solution, no solution,* or *infinitely many solutions*.

81. $y + 3 - y = 9$

82. $\frac{3}{4}x + \frac{1}{4}x = x + 1$

83. $8x - 4 = 7x - 1$

84. $2(3t + 3) = 3(2t + 2)$

85. $7h + 8 = 26 - 2h$

86. $3(5 + a) = \frac{1}{4}(28 + 12a)$

In Exercises 87–94, simplify the expression.

87. $|-4|$

88. $-|10|$

89. $|5| - |-5|$

90. $|-7| + |7|$

91. $-|-3 \bullet (-4)|$

92. $|-0.2 \bullet 5|$

93. $\left|\frac{36}{-9}\right|$

94. $\left|-\frac{-15}{3}\right|$

In Exercises 95–102, solve the equation. Graph the solution(s), if possible.

95. $|r| = 3$

96. $|d| = -7$

97. $|h| = -19$

98. $|b| = 21$

99. $|x + 2| = 4$

100. $|w - 5| = 5$

101. $|-2r| = 10$

102. $\left|\frac{y}{4}\right| = 8$