1. \( \frac{56}{88} \), \( \frac{7}{11} \)
2. \( \frac{132}{110} \), \( \frac{6}{3} \)

Evaluate each expression. Write your answers in simplest form.

3. \( 2 \cdot 3^2 - 8 \cdot 2 \)
4. \( 5 \cdot (7 - 3)^2 \)
5. \( |12 - 5| \)
6. \( |12 - 5| \)
7. \( (-7) + (-9) \)
8. \( \frac{17}{3} + \left( -\frac{5}{3} \right) \)
9. \( (-7)(-9) \)
10. \( (-3.2)(5) \)
11. \( \frac{0}{13} \)
12. \( 8 - 12 + 2 \cdot 3 + 5 \)
13. \( 5 - 4^2 + (-8) \cdot 2 \)
14. \( \frac{4}{9} \times \frac{27}{36} \)
15. \( \frac{3}{4} + \frac{5}{6} \)
16. \( \frac{5}{6} + \frac{25}{21} \)

Evaluate each expression if \( x = -2 \), \( y = 3 \), and \( z = 5 \).

17. \( 3x - y \)
18. \( 4x^2 - y^3 \)
19. \( \frac{5z - 4x}{2y + z} \)
20. \( -y^2 - 8x \)

Simplify and combine like terms.

21. \( 7x - 3y + 2(4x - 3y) \)
22. \( 6x^2 - (5x - 4x^2 + 7) - 8x + 9 \)

Solve each equation.

23. \( 12x - 3 = 10x + 5 \)
24. \( \frac{x - 2}{3} - \frac{x + 1}{4} = 5 \)
25. \( 4(x - 1) - 2(x - 5) = 14 \)

Solve each inequality.

26. \( 7x + 5 \leq 4x - 7 \)
27. \( -5 \leq 2x + 1 \leq 7 \)

Solve each equation for the indicated variable.

28. \( I = Prt \) (for \( r \))
29. \( A = \frac{1}{2}bh \) (for \( h \))
30. \( ax + by = c \) (for \( y \))
31. \( P = 2L + 2W \) (for \( W \))

Use the graph to complete each exercise.

32. \( f(-3) \)
33. \( f(0) \)
34. Value of \( x \) for which \( f(x) = 3 \)

Solve each application. Be sure to show the equation used for the solution.

35. If 4 times a number decreased by 7 is 45, find that number.
36. The sum of two consecutive integers is 85. What are those two integers?
37. If 3 times an odd integer is 12 more than the next consecutive odd integer, what is that integer?
38. Michelle earns $120 more per week than Dmitri. If their weekly salaries total $720, how much does Michelle earn?
39. The length of a rectangle is 2 centimeters (cm) more than 3 times its width. If the perimeter of the rectangle is 44 cm, what are the dimensions of the rectangle?
40. One side of a triangle is 5 in. longer than the shortest side. The third side is twice the length of the shortest side. If the triangle's perimeter is 37 in., find the length of each leg.
57. \(-9x = 36\) \quad -4
58. \(-9x = -63\) \quad 7
59. \(\frac{2}{3}x = 18\) \quad 27
60. \(\frac{7}{8}x = 28\) \quad 32
61. \(7x + 8 = 3x\) \quad 2
62. \(3 - 5x = -17\) \quad 4
63. \(4x - 7 = 2x\) \quad \frac{7}{2}
64. \(2 - 4x = 5\) \quad -\frac{3}{4}
65. \(\frac{x}{2} - 5 = 1\) \quad 18
66. \(\frac{3}{4}x - 2 = 7\) \quad 12
67. \(7x + 4 = 2x + 6\) \quad \frac{2}{3}
68. \(9x - 8 = 7x - 3\) \quad \frac{5}{2}
69. \(2x + 7 = 4x - 5\) \quad 6
70. \(3x - 15 = 7x - 10\) \quad \frac{5}{4}
71. \(\frac{10}{3}x - 5 = 4 \quad \frac{x}{3} + 7\) \quad 8
72. \(\frac{11}{4}x - 15 = 5 - \frac{5}{4}x\) \quad 5
73. \(3.7x + 8 = 1.7x + 16\) \quad 4
74. \(2.4x + 6 - 1.2x = 9 - 1.8x + 12\) \quad 5
75. \(5(3x - 1) - 6x = 3x - 2\) \quad \frac{1}{8}
76. \(5x + 2(3x - 4) = 14x - 7\) \quad \frac{1}{3}
77. \(8x - 5(x + 3) = -10\) \quad \frac{5}{3}
78. \(3(2x - 5) - 2(x - 3) = 11\) \quad 5
79. \(\frac{2x}{3} - \frac{x}{4} = 5\) \quad 12
80. \(\frac{3x}{4} - \frac{2x}{5} = 7\) \quad 30
81. \(\frac{x}{2} - \frac{x + 1}{3} = \frac{1}{6}\) \quad 3
82. \(\frac{x + 1}{5} - \frac{x - 6}{3} = \frac{1}{3}\) \quad 14

Solve each application.

83. **Business and Finance**: A mechanic charged $75 an hour plus $225 for parts to replace the ignition coil on a car. If the total bill was $450, how many hours did the repair job take? \(3\) hr

84. **Business and Finance**: A call to Phoenix, Arizona, from Dubuque, Iowa, costs 55 cents for the first minute and 25 cents for each additional minute or portion of a minute. If Barry has $6.30 in change, how long can he talk? \(20\) min

85. **Number Problem**: The sum of 4 times a number and 14 is 34. Find the number. \(5\)

86. **Number Problem**: If 6 times a number is subtracted from 42, the result is 24. Find the number. \(3\)

*Graph the solution set for each inequality.*

87. \(x > 5\)

88. \(x \leq -4\)

89. \(x \geq 9\)

90. \(x < 0\)

91. \(x - 2 \leq 9\)

92. \(5x > 4x - 3\)

93. \(4x \geq -12\)

94. \(-\frac{5}{3} \geq 5\)

95. \(2x \leq 8x - 3\)

96. \(7 - 6x > 15\)

97. \(5x - 2 \leq 4x + 5\)

98. \(4x - 2 < 7x + 16\)