Answers

15. $10 - \frac{x}{3} = 6$; $x = 12$

16. $5(x + 4) = -15$; $x = -7$

17. $1.06(2x + 6.5) = 16.43$; \$4.50

18. $2(x + 6) + 24 = 64$; 14 ft

1.2 Practice B

1. $t = -12$ **2.** $p = -23$ **3.** $k = 12$

4. $p = 11$ **5.** $b = 3$ **6.** $j = 3$

7. $375 + 34.5x = 720$; 10 h

8. $r = -1$ **9.** $x = -6$ **10.** $v = 5$ **11.** $q = 6$

12. $7 + \frac{x}{5} = -12$; $x = -95$

13. $3x - \frac{1}{2}x = 60$; $x = 24$

14. $8(x - 3) = 40$; $x = 8$

15.

$7 - 2(x - 10) = 15$	Write the equation.
$7 - 2(x) - 2(-10) = 15$	Distributive Property
$7 - 2x + 20 = 15$	Multiply.
$-2x + 27 = 15$	Combine like terms.
$-2x = -12$	Subtract 27 from each side.
$x = 6$	Divide each side by -2.

16. $-15, -17, -19$

1.2 Enrichment and Extension

1. $2n + (2n + 2) + (2n + 4) + (2n + 6) = -52$; $-16, -14, -12, -10$

2. $n + (n + 1) = 29$; 14, 15

3. $(2n + 1) + (2n + 3) + (2n + 5) + (2n + 7) = 200$; 47, 49, 51, 53

4. $2n = 5 + \frac{1}{2}(2n + 2)$; 12, 14

5. $2n + (2n + 2) = 3(2n + 4)$; $-10, -8, -6$

6. $3(n + (n + 1)) = 70 + (n + 2) + n + 3$; 18, 19, 20, 21

7. $n + 4 = 3n$; 2, 3, 4, 5, 6

1.2 Puzzle Time

IT WAS EXHAUSTED

1.3 Start Thinking

Answers may include but are not limited to situations such as the time it takes to get to a relative's house compared with the time it takes to get home, speed hiking up a hill compared with speed hiking back down the hill, and the distance left to go on a trip depending on the distance already traveled.

1.3 Warm Up

1. $5u - 25$ **2.** $34 + 17n$ **3.** $-5e + 20$

4. $-3t - 21$ **5.** $4v - 24$ **6.** $4a + 20$

1.3 Cumulative Review Warm Up

1. -3 **2.** 10,000 **3.** 0

4. -1 **5.** 8 **6.** 0

1.3 Practice A

1. $x = 1$ **2.** $b = 2$ **3.** $k = -4$

4. $t = 2$ **5.** $n = -2$ **6.** $h = 3$

7. $g = 5$ **8.** $w = -1$ **9.** 3 h

10. $y = -8$; one solution **11.** no solution

12. infinitely many solutions

13. no solution

14. incorrect negative on the right side; $2(s - 5) = 2(s + 5)$; $2s - 10 = 2s + 10$; $-10 = 10$; The equation has no solution.

15. a. 25 g **b.** 2 g

16. 28 **17.** 1

Answers

1.3 Practice B

1. $t = -8$ **2.** $u = 2$ **3.** $w = 1$

4. $a = -3$ **5.** $k = 5$ **6.** $x = 4$

7. $x = \frac{1}{2}$ **8.** $g = -5$ **9.** no solution

10. infinitely many solutions

11. $k = 2$; one solution

12. infinitely many solutions

13. $10 + 1.5t = 12.5 + t$; 5 toppings

14. 3 ft; $SA = 108\pi$ ft^2, $V = 108\pi$ ft^3

15. 2.5 m; $SA = 250\pi$ ft^2, $V = 250\pi$ ft^3

16. 14, 15

1.3 Enrichment and Extension

1. $x = \frac{7}{15}$ **2.** all real numbers

3. no solution **4.** $y = -\frac{81}{8}$

5. *Sample answer:* $5x - 7 + 4 = 2x + 3x - 3$

6. *Sample answer:* $t + 5 = t + 7$

7. *Sample answer:* $4x - 3 = 17$

1.3 Puzzle Time

DROP IT A LINE

1.4 Start Thinking

Two numbers that are opposites are the same distance from zero on a number line. Because the distance from 0 to 4 is equal to the distance from 0 to -4, this proves that the absolute value of 4 and -4 are both equal to 4.

1.4 Warm Up

1. no; There is no way to score a negative number of points in a basketball game.

2. yes; It is possible for bank accounts to contain a negative amount of money.

3. yes; If you used less electricity this month than last month, the answer would be negative.

1.4 Cumulative Review Warm Up

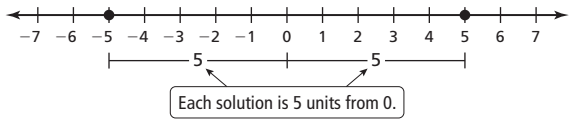
1. $>$ **2.** $<$ **3.** $<$

4. $<$ **5.** $>$ **6.** $=$

1.4 Practice A

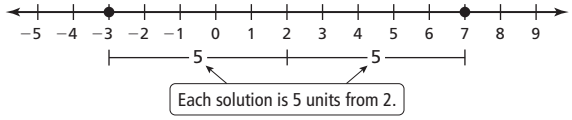
1. -2 **2.** 0 **3.** 6 **4.** 3

5. $r = 5$ and $r = -5$

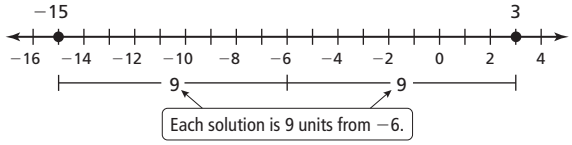


6. no solution

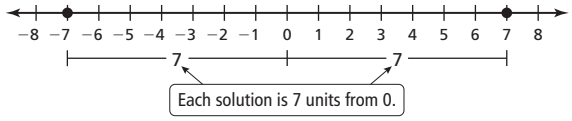
7. $b = 7$ and $b = -3$



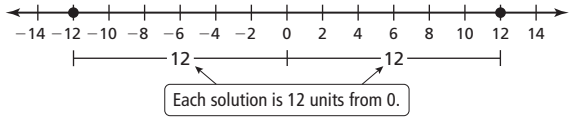
8. $k = 3$ and $k = -15$



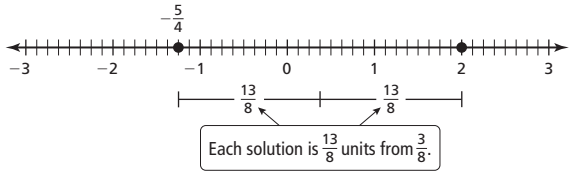
9. $p = 7$ and $p = -7$



10. $q = 12$ and $q = -12$



11. $y = 2$ and $y = -\frac{5}{4}$



12. no solution