Name _____ Date _____ Class _____

LESSON 2-5

Practice C

Solving Equations Containing Integers

Solve. Check each answer.

1. $h - 15 = -17$ _____

2. $a - 29 = -12$ _____

3. $13 = g - 20$ _____

4. $m + 48 = 31$ _____

5. $n + 26 = -4$ _____

6. $0 = z + 50$ _____

7. $15y = -75$ _____

8. $0 = -7d$ _____

9. $-144 = -8v$ _____

10. $\frac{k}{-5} = -14$ _____

11. $\frac{r}{4} = -250$ _____

12. $\frac{t}{-11} = 11$ _____

13. $s + 25 = -18$ _____

14. $-96 = -4j$ _____

15. $x - 49 = -57$ _____

Translate each sentence into an equation. Then solve the equation.

16. 8 less than a number n is –13. _____

17. A number f multiplied by –12 is –72. _____

18. The sum of –47 and a number d is 84. _____

19. The product of 8 and a number q is –40. _____

20. Jake bought 50 shares of stock for $1,000 and sold them for a loss of $375. What was the selling price of each share of stock?

_____

21. Mrs. Lee bought 50 shares of Wiget stock. She paid a total of $1,200, which included a $25 commission fee. Two years later she sold all 50 shares for a total of $1,500. This included a $25 commission fee to the broker. What was the cost and selling price per share of the stock?

_____

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LESSON 2-5

Practice A

Solving Equations Containing Integers

Solve. Check each answer.

1. $n - 6 = -2$ — $n = 4$
2. $x - 8 = -11$ — $x = -3$
3. $7 = a - 5$ — $a = 12$
4. $y + 4 = 2$ — $y = -2$
5. $c + 7 = -3$ — $c = -10$
6. $0 = v + 1$ — $v = -1$
7. $8j = -16$ — $j = -2$
8. $-3k = 24$ — $k = -8$
9. $-20 = -4s$ — $s = 5$
10. $\frac{m}{-2} = -5$ — $m = 10$
11. $\frac{d}{6} = -3$ — $d = -18$
12. $\frac{r}{-7} = 4$ — $r = -28$
13. $p + 8 = -6$ — $p = -14$
14. $-15 = 5b$ — $b = -3$
15. $f - 9 = -1$ — $f = 8$
16. $\frac{n}{6} = -4$ — $n = -24$
17. $k + 10 = 3$ — $k = -7$
18. $4a = -16$ — $a = -4$
19. $-6x = -36$ — $x = 6$
20. $2 = e - 7$ — $e = 9$
21. $3 = \frac{m}{2}$ — $m = 6$

22. The temperature in Minnesota was −8°F one day. This was 12 degrees less than the temperature in Indiana on the same day. What was the temperature in Indiana?

4°F

23. Mr. Harding sold 100 shares of stock at $14 per share. He had a loss of $6 per share. What did Mr. Harding pay for each share of the stock?

$20

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LESSON 2-5

Practice B

Solving Equations Containing Integers

Solve. Check each answer.

1. $y - 5 = -4$ — $y = 1$
2. $n - 9 = -14$ — $n = -5$
3. $13 = x - 15$ — $x = 28$
4. $p + 18 = 14$ — $p = -4$
5. $q + 6 = -2$ — $q = -8$
6. $0 = w + 4$ — $w = -4$
7. $9h = -36$ — $h = -4$
8. $-3b = 36$ — $b = -12$
9. $-100 = -4u$ — $u = 25$
10. $\frac{d}{5} = -7$ — $d = -35$
11. $\frac{c}{4} = -20$ — $c = -80$
12. $\frac{s}{-9} = 9$ — $s = -81$
13. $f + 15 = -16$ — $f = -31$
14. $-75 = 3v$ — $v = -25$
15. $g - 19 = -21$ — $g = -2$
16. $-63 = -9s$ — $s = 7$
17. $14 + m = -10$ — $m = -24$
18. $12 = \frac{w}{4}$ — $w = 48$
19. $x = 15 - 31$ — $x = -16$
20. $\frac{e}{-7} = 8$ — $e = -56$
21. $-6 = 21 - n$ — $n = 27$

22. The temperature in Buffalo, New York, was −2°F one day. This was 42 degrees warmer than the temperature in Nome, Alaska, on the same day. What was the temperature in Nome?

−44°F

23. LaSanda bought 20 shares of stock for $175. She sold the stock for a total profit of $25. What was the selling price of each share of stock?

$10

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LESSON 2-5

Practice C

Solving Equations Containing Integers

Solve. Check each answer.

1. $h - 15 = -17$ — $h = -2$
2. $a - 29 = -12$ — $a = 17$
3. $13 = g - 20$ — $g = 33$
4. $m + 48 = 31$ — $m = -17$
5. $n + 26 = -4$ — $n = -30$
6. $0 = z + 50$ — $z = -50$
7. $15y = -75$ — $y = -5$
8. $0 = -7d$ — $d = 0$
9. $-144 = -8v$ — $v = 18$
10. $\frac{k}{-5} = -14$ — $k = 70$
11. $\frac{r}{4} = -250$ — $r = -1{,}000$
12. $\frac{t}{-11} = 11$ — $t = -121$
13. $s + 25 = -18$ — $s = -43$
14. $-96 = -4j$ — $j = 24$
15. $x - 49 = -57$ — $x = -8$

Translate each sentence into an equation. Then solve the equation.

16. 8 less than a number n is –13.

$n - 8 = -13$; $n = -5$

17. A number f multiplied by –12 is –72.

$-12f = -72$; $f = 6$

18. The sum of –47 and a number d is 84.

$-47 + d = 84$; $d = 131$

19. The product of 8 and a number q is –40.

$8q = -40$; $q = -5$

20. Jake bought 50 shares of stock for $1,000 and sold them for a loss of $375. What was the selling price of each share of stock?

$12.50

21. Mrs. Lee bought 50 shares of Wiget stock. She paid a total of $1,200, which included a $25 commission fee. Two years later she sold all 50 shares for a total of $1,500. This included a $25 commission fee to the broker. What was the cost and selling price per share of the stock?

cost: $23.50; selling price: $29.50

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LESSON 2-5

Reteach

Solving Equations Containing Integers

- You can use addition to solve an equation involving subtraction. Addition undoes subtraction. Adding the same number to both sides of the equation keeps the equation balanced.

$x - 5 = -6$
$x - 5 + 5 = -6 + 5$
$x = -1$

Check
$x - 5 = -6$
$-1 - 5 \stackrel{?}{=} -6$
$-6 \stackrel{?}{=} -6$ ✓

- You can use subtraction to solve an equation involving addition. Subtraction undoes addition. Subtracting the same number from both sides of the equation keeps the equation balanced.

$n + 4 = -15$
$n + 4 - 4 = -15 - 4$
$n = -19$

Check
$n + 4 = -15$
$-19 + 4 \stackrel{?}{=} -15$
$-15 \stackrel{?}{=} -15$ ✓

Solve. Check your answer.

1. $p - 9 = -3$
$p - 9 + \underline{9} = -3 + \underline{9}$
$p = 6$

2. $w - 2 = -14$
$w - 2 + \underline{2} = -14 + \underline{2}$
$w = -12$

3. $x - 12 = -5$
$x - 12 + \underline{12} = -5 + \underline{12}$
$x = 7$

4. $f - 8 = 6$
$f - 8 + \underline{8} = 6 + \underline{8}$
$f = 14$

5. $6 = m - 7$ — $m = 13$
6. $-4 = s - 10$ — $s = 6$
7. $-8 = y - 2$ — $y = -6$
8. $a + 19 = 7$ — $a = -12$
9. $b + 15 = -9$ — $b = -24$
10. $39 + t = 45$ — $t = 6$
11. $-5 = x + 7$ — $x = -12$
12. $-2 = k + 11$ — $k = -13$
13. $10 = -3 + j$ — $j = 13$

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