Name _____ Date _____ Class _____

LESSON 6-4

Solving Two-Step Equations

Practice and Problem Solving: A/B

Solve each equation. Cross out each number in the box that matches a solution.

–18	–8	–6	–4	–3	–2	2	3	4	6	8	18

1. $5x + 8 = 23$ _____

2. $-2p - 4 = 2$ _____

3. $6a - 11 = 13$ _____

4. $4n + 12 = 4$ _____

5. $9g + 2 = 20$ _____

6. $\frac{k}{6} + 8 = 5$ _____

7. $\frac{s}{3} - 4 = 2$ _____

8. $\frac{c}{2} + 5 = 1$ _____

9. $9 + \frac{a}{6} = 8$ _____

Solve. Check each answer.

10. $3v - 12 = 15$ _____

11. $8 + 5x = -2$ _____

12. $\frac{d}{4} - 9 = -3$ _____

Write an equation to represent the problem. Then solve the equation.

13. Two years of local Internet service costs $685, including the installation fee of $85. What is the monthly fee?

_____

14. The sum of two consecutive numbers is 73. What are the numbers?

_____

Success for English Learners

1. Sample answer: Eighteen less three times a number equals three.
2. $5x - 7 = -11$

LESSON 6-4

Practice and Problem Solving: A/B

1. $x = 3$
2. $p = -3$
3. $a = 4$
4. $n = -2$
5. $g = 2$
6. $k = -18$
7. $s = 18$
8. $c = -8$
9. $a = -6$
10. $v = 9$
11. $x = -2$
12. $d = 24$
13. $24s + 85 = 685$; $s = \$25$
14. $x + x + 1 = 73$; 36 and 37

Practice and Problem Solving: C

1. $2x - 17 = 3$; $x = 10$
2. $\frac{5x - 1}{3} = 4$; $x = 2.6$
3. $\frac{3 - 4x}{5} = -7$, $x = 9.5$
4. $8 + 5x = -12$ or $5x + 6 = -14$; $x = -4$
5. $-4x + 7 = -9$ or $7 = 4x - 9$; $x = 4$
6. $\frac{x + 11}{3} = 6$; $x = 7$
7. $s = \frac{u - t}{r}$; Subtract t from both sides, then divide both sides by r.
8. $t = \frac{u}{r} - s$; Divide both sides by r, then subtract s from both sides.
9. $n = pq - m$; Multiply both sides by p, then subtract m from both sides.
10. $p = \frac{m + n}{q}$; Multiply both sides by p, then divide both sides by q.

Practice and Problem Solving: D

1. Subtract 3 from both sides; $5x = 30$. Then divide both sides by 5; $x = 6$.
2. Add 1 to both sides; $8y = 32$. Then divide both sides by 8; $y = 4$.
3. Subtract 5 from both sides; $\frac{1}{2}z = 6$. Then multiply both sides by 2; $z = 12$.
4. Subtract 15 from both sides; $-4t = -12$. Then divide both sides by -4; $t = 3$.
5. Multiply both sides by 3; $q + 3 = 15$. Then subtract 3 from both sides; $q = 12$.
6. $m = 1$
7. $p = 8$
8. $2n - 3 = 17$; $n = 10$
9. $\frac{1}{2}x + 5 = 9$; $x = 8$
10. $15 + 2y = 29$; $y = 7$

Reteach

1. Subtract 11 from both sides. Then divide both sides by 4. $x = 2$
2. Subtract 10 from both sides. Then divide both sides by -3. $y = 8$
3. Multiply both sides by 3. Then add 11 to each side. $r = -10$
4. Subtract 5 from each side. Then divide both sides by -2. $p = -3$
5. Subtract 1 from each side. Then multiply both sides by $\frac{3}{2}$ $\left(\text{or divide both sides by } \frac{2}{3}\right)$. $z = 18$
6. Multiply both sides by 9. Then add 17 to each side. $w = 35$

Reading Strategies

1. Multiply by -2, then subtract 3.
   Add 3 to each side, then divide each side by -2.
   $x = 11$
2. Add 1, then divide the result by 3.
   Multiply both sides by 3, then subtract 1 from each side.
   $x = -16$