

CHAPTER
3 **At-Home Practice**
Multi-Step Equations

Combine like terms.

1. $3x + 6v + 5x - 3v + 8$

2. $4s - 3s + 2 + 5j + 9s + 7j$

Solve. Check each answer.

3. $9n - 5 + 3n = -5$

4. $8p - 9 + 6p - 7 = -2$

5. $\frac{d}{5} - \frac{1}{5} = \frac{14}{5}$

6. $5(2w + 1) + w = 49$

7. $15x + 9 - 2x = -30$

8. $\frac{3}{7} + \frac{2p}{7} = \frac{15}{7}$

9. $13h = 45 - 2h$

10. $8 + 6k = -10 - 24$

11. $4(x + 5) = 15 - x$

12. $4(n - 5) = 9n$

13. $-21 + 3b = -11b + 7$

14. $2(5 + 3x) = 4(2x)$

Name the property that is illustrated in each equation.

15. $(15 + r) + 6 = 15 + (r + 6)$

16. $3 \cdot 4 \cdot 12 = 12 \cdot 3 \cdot 4$

17. $18 \cdot (11 \cdot q) = (8 \cdot 11) \cdot q$

18. $60 + \frac{1}{9} = \frac{1}{9} + 60$

Answers: 1. $8x + 3v + 8$ 2. $10s + 12j + 2$ 3. $n = 0$ 4. $p = 1$ 5. $d = 15$ 6. $w = 4$ 7. $x = -3$ 8. $p = 6$ 9. $h = 3$ 10. $k = -7$ 11. $x = -1$ 12. $n = -4$ 13. $b = 2$ 14. $x = 5$ 15. Assoc. Prop. of Add. 16. Comm. Prop. of Mult. 17. Assoc. Prop. of Mult. 18. Comm. Prop. of Add.

CHAPTER **Family Fun**
3 **Four in a Row Equations**

Directions

- Each player should create a 4-by-4 grid as shown.
- Have each player write the equations below in any order in each one of the squares in the grid.

$x = 0$ $x = 1$ $x = 2$ $x = 3$ $x = 4$
 $x = 5$ $x = 6$ $x = 7$ $x = 8$
 $x = -1$ $x = -2$ $x = -3$ $x = -4$
 $x = -5$ $x = -6$ $x = -7$

- Each player will work out problems 1 to 16 in the order in which they appear. If the player finds the solution on his or her grid, the player will color in the corresponding square.
- The first player to color in four squares in a row, column, or diagonal wins the game.

1. $-5x + 1 = -15 + 1$

2. $3 = 5 - 2x$

3. $3x = 4x - 8$

4. $11(x + 4) = 44$

5. $-23 = 4x + 3x + 5$

6. $7x + 1 - 3x = 9$

7. $-15x + 1 = -13x + 15$

8. $3(x - 4) = 5x$

9. $\frac{5x}{7} + \frac{12}{7} = \frac{2}{7}$

10. $\frac{x - 8}{3} = -3$

11. $9(2x) = 4x + 21 + 3x + 23$

12. $2x + 1 = 4x + 7$

13. $\frac{2x + 60}{4} = 3x$

14. $\frac{3}{8} + \frac{x}{8} = \frac{10}{8}$

15. $5 - (x + 2) = -2x - 2$

16. $2x - 5 = x$

Answers: 1. $x = 3$ 2. $x = 1$ 3. $x = -8$ 4. $x = 0$ 5. $x = -4$ 6. $x = 2$ 7. $x = -1$ 8. $x = -3$ 9. $x = -2$ 10. $x = 7$ 11. $x = 5$ 12. $x = -3$ 13. $x = 15$ 14. $x = 7$ 15. $x = 3$ 16. $x = 5$