## **Solve Multi-Step Inequalities**

## **6.2 Practice 4**

Solve each inequality. Then check your solution.

1. 
$$11y + 13 \ge -1$$

2. 
$$8n-10 < 6-2n$$

3. 
$$\frac{q}{7} + 1 > -5$$

**4.** 
$$6n + 12 < 8 + 8n$$

5. 
$$-12 - d > -12 + 4d$$

**6.** 
$$5r - 6 > 8r - 18$$

7. 
$$\frac{-3x+6}{2} \le 12$$

**8.** 
$$7.3y - 14.4 > 4.9y$$

9. 
$$-8m - 3 < 18 - m$$

**10.** 
$$-4y - 10 > 19 - 2y$$

11. 
$$9n - 24n + 45 > 0$$

12. 
$$\frac{4x-2}{5} \ge -4$$

Define a variable, write an inequality, and solve each problem. Then check your solution.

13. Negative three times a number plus four is no more than the number minus eight.

14. One fourth of a number decreased by three is less than two.

15. The sum of twelve and a number is no greater than the sum of twice the number and -8.

## **Solve Multi-Step Inequalities**

## 6.2 Practice 4

Solve each inequality. Then check your solution.

1. 
$$2(t+3) \ge 16$$

**2.** 
$$3(d-2)-2d > 16$$

3. 
$$4h - 8 \le 2(h - 1)$$

**4.** 
$$6y + 10 > 8 - (y + 14)$$

**5.** 
$$4.6(x-3.4) > 5.1x$$

**6.** 
$$-5x - (2x + 3) \ge 1$$

7. 
$$3(2y-4)-2(y+1) > 10$$

**8.** 
$$8 - 2(b + 1) < 12 - 3b$$

9. 
$$-2(k-1) > 8(1+k)$$

**10.** 
$$0.3(y-2) > 0.4(1+y)$$

11. 
$$m + 17 \le -(4m - 13)$$

**12.** 
$$3n + 8 \le 2(n-4) - 2(1-n)$$

13. 
$$2(y-2) > -4 + 2y$$

**14.** 
$$k - 17 \le -(17 - k)$$

**15.** 
$$n-4 \le 0-3(2+n)$$

Define a variable, write an inequality, and solve each problem. Then check your solution.

- **16.** Twice the sum of a number and 4 less than 12.
- 17. Three times the sum of the number and six is greater than four times the number decreased by two
- 18. Twice the difference of a number and four is less than the sum of the number and five.