3.2 Solving Equations Having Like Terms and Parentheses
Example 1  Writing and Solving an Equation

Baseball Game  A group of five friends are going to a baseball game. Tickets for the game cost $12 each, or $60 for the group. The group also wants to eat at the game. Hot dogs cost $2.75 each and bottled water costs $1.25 each. The group has a total budget of $85. If the group buys the same number of hot dogs and bottles of water, how many can they afford to buy?

Solution
Example 2  Solving Equations Using the Distributive Property

Solve the equation.

a. \(-24 = 6(2 - x)\)  
   b. \(-2(7 - 4x) = 10\)
Example 3  Combining Like Terms After Distributing

Solve $6x - 4(x - 1) = 14$. 
**Checkpoint** Solve the equation. Check your solution.

1. \(-20 = 5(3 - x)\)

2. \(4y - 14 + 3y = 28\)

3. \(-3(6 - 2x) = 12\)

4. \(5x - 2(x - 3) = 30\)
**Challenge**

The perimeter of the figure is 42 inches. Find $x$, the length of 4 of the hexagon’s sides.