

Lesson 9.4 Study Guide and Intervention**Solve Equations with Parentheses****Example 1** Simplify and solve the equation $2(6m - 1) = 8m$.

$2(6m - 1) = 8m$	Write the equation.
$12m - 2 = 8m$	Apply the distributive property.
$12m - 12m - 2 = 8m - 12m$	Subtract $12m$ from each side.
$-2 = -4m$	Simplify.
$\frac{-2}{4} = \frac{-4m}{-4}$	Divide each side by -4 .
$\frac{1}{2} = m$	Simplify.

Example 2 Evaluate $7.8 - (1.3 + 9.6)$.**Method 1**

$7.8 - (1.3 + 9.6)$	Write the expression.
$7.8 - 10.9$	Add 1.3 and 9.6.
-3.1	Simplify.

Method 2

$7.8 - (1.3 + 9.6)$	Write the expression.
$7.8 - 1.3 - 9.6$	Apply the distributive property.
$6.5 - 9.6$	Subtract 1.3 from 7.8.
-3.1	Simplify.

Example 3 Rewrite each expression without parentheses. Simplify.

a. $3 - (6x - 6)$

$3 - 6x + 6$	Rewrite the expression.
$9 - 6x$	Simplify.

b. $7g - (4h + 9g)$

$7g - 4h - 9g$	Rewrite the expression.
$-2g - 4h$	Combine like terms.

Exercises

Solve each equation. Check your solution.

1. $2(s + 11) = 5(s + 2)$ 2. $7y - 1 = 2(y + 3) - 2$ 3. $1 + 2(b + 6) = 5(b - 1)$

Evaluate each expression.

4. $48 - (21 - 37)$ 5. $1.9 - (3 + 1.1)$ 6. $41 - (107 - 77)$

Rewrite each expression without parentheses. Simplify.

7. $40 - (10f - 19)$ 8. $16x - (6 + 9x)$ 9. $9n - (15n - m)$