

# Lesson 2 Reteach

## Solve Two-Step Equations

A **two-step equation** contains two operations. To solve a two-step equation, undo each operation in reverse order.

### Example 1

Solve  $2a + 6 = 14$ . Check your solution.

$2a + 6 = 14$	Write the equation.
$\underline{-6 = -6}$	Subtraction Property of Equality
$2a = 8$	Simplify.
$\frac{2a}{2} = \frac{8}{2}$	Division Property of Equality
$a = 4$	Simplify.

<b>Check</b> $2a + 6 = 14$	Write the equation.
$2(4) + 6 \stackrel{?}{=} 14$	Replace $a$ with 4 to see if the sentence is true.
$14 = 14 \checkmark$	The sentence is true.

The solution is 4.

Sometimes it is necessary to combine like terms before solving an equation.

### Example 2

Solve  $5 = 8x - 2x - 7$ . Check your solution.

$5 = 6x - 7$	Write the equation.
$5 + 7 = 6x - 7 + 7$	Addition Property of Equality
$12 = 6x$	Simplify.
$\frac{12}{6} = \frac{6x}{6}$	Division Property of Equality
$2 = x$	Simplify.

The solution is 2. Check this solution.

### Exercises

Solve each equation. Check your solution.

- |                                     |   |                                     |
|-------------------------------------|---|-------------------------------------|
| 1. $2d + 7 = 9$ <b>1</b>            | 2. $11 = 3z + 5$ <b>2</b>               | 3. $2s - 4 = 6$ <b>5</b>            |
| 4. $-12 = 5r + 8$ <b>-4</b>         | 5. $-6p - 3 = 9$ <b>-2</b>              | 6. $-14 = 4x - 2$ <b>-3</b>         |
| 7. $2c + 2 = 10$ <b>4</b>           | 8. $3 + 9n = 21$ <b>2</b>               | 9. $21 = 5 - r$ <b>-16</b>          |
| 10. $8 - 5b = -7$ <b>3</b>          | 11. $-10 = 6 - 4m$ <b>4</b>             | 12. $-3t + 4 = 19$ <b>-5</b>        |
| 13. $2 + \frac{a}{6} = 5$ <b>18</b> | 14. $-\frac{1}{3}q - 7 = -3$ <b>-12</b> | 15. $4 - \frac{v}{5} = 0$ <b>20</b> |