

# Equations with More Than One Operation

Some equations require more than one operation to solve. When you solve an equation with more than one step, undo the operations in this order:

- First undo addition or subtraction.
- Then undo multiplication or division.

<p>Solve <math>5x - 10 = 95</math>.</p> <p><b>Step 1:</b> Undo subtraction. Add 10 to both sides.</p> <p><b>Step 2:</b> Undo multiplication. Divide both sides by 5.</p> <p><b>Step 3:</b> Check by substitution.</p>	$5x - 10 = 95$ $5x - 10 + 10 = 95 + 10$ $5x = 105$ $\frac{5x}{5} = \frac{105}{5}$ $x = 21$ $5x - 10 = 95$ $5(21) - 10 = 95$ $105 - 10 = 95$ $95 = 95 \checkmark$
<p>Solve <math>10 = \frac{n}{5} + 6</math></p> <p><b>Step 1:</b> Undo addition. Subtract 6 from both sides.</p> <p><b>Step 2:</b> Undo division. Multiply both sides by 5.</p> <p><b>Step 3:</b> Check by substitution.</p>	$10 = \frac{n}{5} + 6$ $10 - 6 = \frac{n}{5} + 6 - 6$ $4 = \frac{n}{5}$ $4 \times 5 = \frac{5 \times n}{5}$ $20 = n$ $10 = \frac{n}{5} + 6$ $10 = \frac{20}{5} + 6$ $10 = 4 + 6$ $10 = 10 \checkmark$

Solve each equation and check your solution.

1.  $8b + 16 = 64$  \_\_\_\_\_

2.  $2y - 4 = 24$  \_\_\_\_\_

3.  $\frac{q}{10} + 5 = 10$  \_\_\_\_\_

4.  $\frac{m}{3} + 2 = 17$  \_\_\_\_\_

5.  $\frac{p}{4} + 13 = 21$  \_\_\_\_\_

6.  $5b - 8 = 17$  \_\_\_\_\_

7.  $\frac{a}{3} - 17 = 14$  \_\_\_\_\_

8.  $3d + 17 = 24.5$  \_\_\_\_\_

9. **Number Sense** Would you expect the solution of  $4x + 12 = 36$  to be greater than or less than 36? Explain.
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