

One-Step Equations

6th Grade

Do the opposite operation, to both sides, and the letter is left alone.

**To solve, do the inverse operation to both sides.
Addition undoes subtraction; multiplication undoes division.**

$$x + 7 = 12 \rightarrow x = 12 - 7$$

$$x + 7 = 12$$

$$x = 5$$

Subtract 7 from both sides.

$$x - 4 = 9$$

$$x = 13$$

Add 4 to both sides.

$$3x = 21$$

$$x = 7$$

Divide both sides by 3.

$$x / 5 = 4$$

$$x = 20$$

Multiply both sides by 5.

THE COMMON MISTAKE

× $3x = 21 \rightarrow x = 21 - 3$

✓ $3x = 21 \rightarrow x = 21 \div 3$

3x means 3 times x, so the inverse is dividing, not subtracting.

Always substitute your answer back into the original. It takes five seconds and catches everything.