

Solving Multi-Step Equations: Part 1

You can solve an equation by getting the variable alone on one side of the equation. When solving a multi-step equation, you will need to complete multiple steps.



Let's try it! Solve the equation $5(4h - 3) = 13 + 6h$.

$$5(4h - 3) = 13 + 6h$$

Apply distributive property. Multiply the terms inside of the parentheses by 5.

$$20h - 15 = 13 + 6h$$

$$20h - 15 - 6h = 13 + 6h - 6h$$
 Subtract $6h$ from both sides of the equation to get the variable term to one side.

$$14h - 15 = 13$$

$$14h - 15 + 15 = 13 + 15$$

Add 15 to both sides of the equation to get the variable term alone.

$$14h = 28$$

$$\frac{14h}{14} = \frac{28}{14}$$

Divide both sides of the equation by 14 to get h alone.

$$h = 2$$

Practice! Solve each equation.

$$2n - 7 - 5n = 11$$

$$3k + 7 = 15 - k$$

$$6(2p - 3) = 42$$

$$4 - 9c - 12 + 3c = 22$$

$$7r - 7 = 5(r - 3)$$

$$3(2w - 9) = 14 + 2w - 5$$

$$5d + 10 - 3d = 27 + 9d + 32$$

$$7a - 4 - 4a = 3(3a + 7) + 23$$