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.

$2n - 7 - 5n = 11$ **n = -6**	$3k + 7 = 15 - k$ **k = 2**
$6(2p - 3) = 42$ **p = 5**	$4 - 9c - 12 + 3c = 22$ **c = -5**
$7r - 7 = 5(r - 3)$ **r = -4**	$3(2w - 9) = 14 + 2w - 5$ **w = 9**
$5d + 10 - 3d = 27 + 9d + 32$ **d = -7**	$7a - 4 - 4a = 3(3a + 7) + 23$ **a = -8**