

<p style="text-align: center;"><u>STEPS TO SOLVE</u></p> <ol style="list-style-type: none"> 1. DISTRIBUTE IF NEEDED 2. COMBINE LIKE TERMS 3. ISOLATE THE VARIABLE (PEMDAS IN REVERSE) 4. CHECK THE SOLUTION 	<p>EQUATIONS</p> <p>MUST</p> <p>ALWAYS</p> <p>BE</p> <p><u>Balanced!</u></p>
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EXAMPLES	
<p>1. $6k - 3 = 2k + 13$</p> <p style="margin-left: 20px;">$-2k$ $-2k$</p> <p style="margin-left: 20px;">$4k - 3 = 13$</p> <p style="margin-left: 40px;">$+3$ $+3$</p> <p style="margin-left: 20px;">$\frac{4k}{4} = \frac{16}{4}$</p> <p style="margin-left: 100px;">$k = 4$</p> <p><u>Check:</u></p> <p style="margin-left: 20px;">$6(4) - 3 = 2(4) + 13$</p> <p style="margin-left: 20px;">$24 - 3 = 8 + 13$</p> <p style="margin-left: 20px;">$21 = 21$</p>	<p>2. $8 - 2p = 4p - 10$</p> <p style="margin-left: 20px;">$-4p$ $-4p$</p> <p style="margin-left: 20px;">$8 - 6p = -10$</p> <p style="margin-left: 20px;">-8 -8</p> <p style="margin-left: 20px;">$\frac{-6p}{-6} = \frac{-18}{-6}$</p> <p style="margin-left: 20px;">$p = -3$</p> <p><u>Check:</u></p>

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EXAMPLES

$$3. \quad 5(2x - 7) = 15x - 10$$

$$\cancel{10x} - 35 = 15x - 10$$

$-10x \qquad -10x$

$$-35 = 5x - 10$$

$+10 \qquad +10$

$$\frac{-25}{5} = \frac{5x}{5}$$

$$x = -5$$

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EXAMPLES

$$4. \quad \frac{2}{5}n - 9 = 7 - \frac{3}{5}n$$

$$+\frac{3}{5}n \qquad +\frac{3}{5}n$$

$$\frac{5}{5}n - 9 = 7$$

$+9 \qquad +9$

$$\frac{5}{5}n = 16$$

$$1n = 16$$

$$n = 16$$

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EXAMPLES

$$5. \quad 5 + 2x = 2x + 6$$

$$\quad \quad \quad \cancel{-2x} \quad \cancel{-2x}$$

$$5 \neq 6$$

No Solution

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EXAMPLES

$$6. \quad 8x + 4(4x + 3) = 4(6x + 4) - 4$$

$$8x + 16x - 12 = 24x + 16 - 4$$

$$\cancel{24x} + 12 = \cancel{24x} + 12$$

$$\quad \quad \quad \cancel{-24x}$$

$$\quad \quad \quad \cancel{-24x}$$

$$12 \overset{\checkmark}{=} 12$$

All \mathbb{R} (real) numbers

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