

ONE-TWO STEP EQUATIONS

WHEN SOLVING EQUATIONS MUST
BE Balanced

WHAT YOU DO TO one SIDE YOU
MUST DO TO THE other

<u>Add</u>	<u>multiply</u>
↑ CAN ↓ ↑ UNDO ↓	↑ CAN ↓ ↑ UNDO ↓
<u>Subtract</u>	<u>Divide</u>

Aug 22-1:07 PM

STEPS TO SOLVE

1. Distribute IF NEEDED
2. COMBINE Like TERMS
3. ISOLATE THE Variable
(PEMDAS IN REVERSE)
4. CHECK THE Solution

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EXAMPLES		
<p>1. $x - 2 = 14$ $+2 \quad +2$</p> <p>$x = 16$</p> <p><u>check</u></p> <p>$16 - 2 = 14$ $14 = 14$</p>	<p>2. $3x + 7 = 28$ $-7 \quad -7$</p> <p>$\frac{3x}{3} = \frac{21}{3}$</p> <p>$x = 7$</p> <p><u>check</u></p> <p>$3(7) + 7 = 28$ $21 + 7 = 28$ $28 = 28$</p>	<p>3. $\frac{-4x}{-4} = \frac{20}{-4}$</p> <p>$x = -5$</p> <p><u>check</u></p> <p>$-4(-5) = 20$ $20 = 20$</p>

Aug 22-1:07 PM

EXAMPLES	
<p>4. $\frac{1}{2}x = 10$ (2)</p> <p>$\frac{1x}{1} = \frac{20}{1}$</p> <p>$x = 20$</p> <p><u>check</u></p> <p>$\frac{1}{2} \cdot \frac{20}{1} = 10$ $\frac{20}{2} = 10$ $10 = 10$</p>	<p>5. $\frac{3}{4}x = 3$ (4)</p> <p>$\frac{3x}{3} = \frac{12}{3}$</p> <p>$x = 4$</p> <p><u>check</u></p> <p>$\frac{3}{4} \cdot \frac{4}{1} = 3$ $\frac{12}{4} = 3$ $3 = 3$</p>

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EXAMPLES

How many ink cartridges can you buy with 100 dollars if each cartridge cost 5 dollars?

x - ink cartridges
 $\$5$ - each (x)

$$\frac{5 \cdot x}{5} = \frac{100}{5} \quad x = 20 \text{ cartridges}$$

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EXAMPLES

Jane had 60 pieces of chocolate, but she gave some away to John. How many did she give away if she has 35 left?

Candy

$$60 - x = 35$$

$$\begin{array}{r} -60 \\ \hline -x = -25 \\ \hline -1 \quad -1 \end{array}$$

$x = 25$

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