

# SOLVING EQUATIONS (top layer)

Look at the equation. Are there any grouping symbols like ( ) or { }?
Look at each side of the equation. Are there like terms on the left side? Are there like terms on the right side?
Do you have variables on both sides of the equal sign?
Do you have a constant added or subtracted on both sides of the equal sign?
Does your variable have a coefficient other than 1?
You should have a simple equation with a variable = a number. Check your solution by substituting the number in the original equation.

# GLUING TAB (middle layer)

Use the distributive property to multiply the number outside the parentheses by every term inside the parentheses: $3(x^2 + x - 2)$ is the same as $3x^2 + 3x - 6$ Or $-(x - 7)$ is the same as $-x + 7$	Y E S		
Combine like terms on the left side of the equal sign. Combine like terms on the right side of the equal sign. $4x + 3x$ is the same as $7x$ $5x^2 - x^2$ is the same as $4x^2$	Y E S		
Choose the variable with the smaller coefficient. Undo that variable by adding the opposite to both sides of the equation. $3x + 2 = 4x - 1$ Add a $-3x$ to both sides of the equation	Y E S		
Choose the constant that is on the same side as the variable. Undo that constant by adding the opposite to both sides of the equation. $7 = 5x - 3$ Add positive 3 to both sides of the equation	Y E S		
Undo the coefficient of the variable by doing the opposite operation (multiply or divide). <table border="1" data-bbox="749 755 1197 836"> <tr> <td><math>3x = 12</math> Divide by 3</td> <td><math>\frac{x}{4} = 6</math>      Multiply by 4</td> </tr> </table>	$3x = 12$ Divide by 3	$\frac{x}{4} = 6$ Multiply by 4	Y E S
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Solution: $x = 5$ Original equation: $2(x - 3) = x - 1$ $2(5 - 3) = 5 - 1$ $2(2) = 4$ $4 = 4$	Y E S		

# GLUING TAB (bottom layer)

There are no grouping symbols. Go to the next step	N O
Each side of the equation is simplified, no terms can be combined. Go to the next step.	N O
The variables are only on one side of the equation. Go to the next step.	N O
The constant values are only on one side of the equation. Go to the next step.	N O
The variable has a coefficient of 1. Go to the next step.	N O
My solution checks in the original equation!	Y E S

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