

Using the Equation Solver

The equation solver simplifies using equations where you have multiple known values and need to solve for a single unknown.

Example: The Pythagorean Theorem

Step 1: Enter the Pythagorean Theorem. In WYSIWYG, you can enter the entire equation on the console. For both WYSIWYG and RPN, you can have the equation as the first line in the output window, or select any line in the output window. The equation must be of the form *simple expression = simple expression*

$a^2 + b^2 = c^2$	- or -	
$a^2 + b^2 = c^2$	- or -	$b^2 + a^2 = c^2$
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Step 2: Use 2nd → eq to enter the Equation Solver. The variables from the equation will automatically be discovered and listed below the equation. If the variables already have an assigned value, it will be used as the default value in the equation solver.

$a^2 + b^2 = c^2$	
$a =$ _____	
$b =$ _____	
$c =$ _____	

Step 3: Enter known values for a , b , or c . When only one unknown remains, its value will automatically be computed and displayed in green.

$$a^2 + b^2 = c^2$$

$a=3$ 

$b=\{-4, 4\}$ 

$c=5$ 

Step 4: Multiple solutions were found for b , but we are only interested in the positive solution. Click the solutions and you will be given the choice of which to keep.

Step 5: Use the  button to send the solution for b back to the calculator's output window.

Step 6: You can continue to enter values for a , b , or c . Clear the value in the field you want to solve for, and the solution will automatically be generated. Use the  button to send any value back to the output window.

Helpful Hints:

- The equation solver remembers equations you have used in the past. Tap the equation at the top of the screen to use anything from your history.
- The equation solver can use variables from the Variable Editor app in the Acron Store. You can use the Variable Editor to create upper-case variables, variables with subscripts, Greek-lettered variables, etc.
- By default, the equation solver uses a numeric keyboard for entering values. You can tap the  icon to switch to an alphabetic keyboard. With an alphabetic keyboard, you can enter more complicated values, such as $\sin(\pi/3)$ or $\sqrt{2}$. Tap the  icon to return to the numeric keyboard.