

Example 1: The Pythagorean Theorem

Note: You must be using the paid version 2.0.0 or later to use macros.

Problem: Use the Pythagorean Theorem to find the hypotenuse for the following right triangles

<u>a</u>	<u>b</u>	<u>c</u>
3	4	?
5	12	?
8	15	?
33	56	?

Step 1:

Solve the first triangle using normal calculator operations



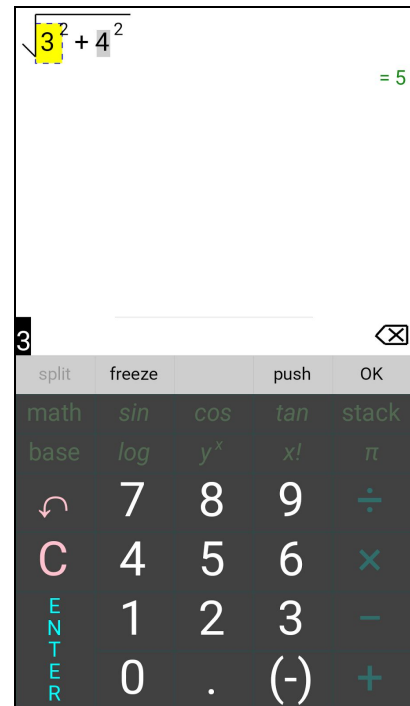
Step 2:

Turn the equation from step 1 into a macro by selecting it and choosing macro from Pg 2/2 of the selection toolbar.

You've now entered macro mode. You see your selected equation enlarged, the selected answer is shrunk, and everything else on your stack is hidden. Most buttons are now disabled.

Step 3:

Notice that the two numbers we entered in our original computation are highlighted. The 3 is highlighted in yellow and displayed on the console line, meaning we are being prompted for a new value to replace the 3. Enter the next 'a' value from our table (5) and hit ENTER. The 3 in the equation is replaced



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by 5, the answer is updated, and the yellow selection box moves to the 4.

Step 4:

Enter the next 'b' value from our table (12) and hit ENTER. The 4 is replaced with 12, the answer is updated to 13, and the yellow selection box moves back to 5. Here's the answer to the second line in our table. Hit 'push' to push this equation to the stack.

Step 5:

Repeat steps 3-4 for the remaining numbers in our table: 8 ENTER 15 ENTER push; 33 ENTER 56 ENTER push.

Step 6:

We're done with our macro. Hit OK to exit macro mode and return to the stack. You see the original equation for (3, 4), plus the three new equations we pushed for (5, 12), (8, 15), and (33, 56).

Helpful Hints:

Hitting ENTER applies the value on the console and advances the selection to the next value. Hitting UNDO discards the console and moves the selection back to the previous value; it does not undo changes that have already been applied. Hitting C clears the text on the console.

You can tap any of the values in the macro equation to select them. If your equation has a lot of values, this may be faster than using ENTER/UNDO to get to the value.

If you type a new number on the console and hit push (before hitting ENTER), the equation will be updated prior to doing the push, but the selection will not advance to the next value.

Hitting OK will push the current equation to the stack only if it's been modified since the last push.