

# Program Editor

In this view you can enter or edit a program in a convenient way. To show it, press the [ G ] [ P/R ] keys in the calculator's keyboard or select "Program Editor" in the "Program" button in the Main menu.





The screenshot shows the Program Editor interface with the following components and callouts:

- Close the view:** Points to the "Close" button in the top left.
- Save Program and close the view:** Points to the "Save" button in the top right.
- Action Menu:** Points to the "Name: SH-11C-P193" field.
- Current program line:** Points to line 005 in the program listing.
- Program Listing:** Points to the "Keystrokes" column for line 007.
- Dynamic Keypad to enter program instructions:** Points to the "5" key on the keypad.

#	Code	Keystrokes
001	42, 21, 11	F LBL A
002	42 34	F clear REG
003	42, 7, 4	F FIX 4
004	44 1	STO 1
005	31	R/S
006	44 2	STO 2
007	31	R/S
008	43 2	G →H
009	1	1
010	8	8
011	0	0
012	40	+
013	44 0	STO 0
014	31	R/S

Calculator keypad layout:

- Row 1:  $\sqrt{x}$ ,  $e^x$ ,  $10^x$ ,  $Y^x$ ,  $1/X$
- Row 2: SST, GTO, SIN, COS, TAN
- Row 3: R/S, GSB, R↓,  $X\rightleftharpoons Y$ , ←
- Row 4: CHS, 7, 8, 9, ÷
- Row 5: EEX, 4, 5, 6, ×
- Row 6: STO, 1, 2, 3, −
- Row 7: RCL, 0, .,  $\Sigma+$ , +
- Row 8: ENTER, F, G
- Row 9: Add, insert, Clear, Delete

[  <b>Name ▶</b> ]	Program Editor action menu.
 New	Clears the editor to enter a new program.
 Name...	Shows a pop-up view to name the program.
> Load	Shows a submenu to load a previously saved program.
 Delete	Delete the current program list.
[ <b>Close</b> ]	Close the Editor.
[ <b>Save</b> ]	Save the program to the calculator and close the editor.
[ <b>Add</b> ]	Add a new program line at the end of the listing.
[ <b>Delete</b> ]	Remove the selected program line from the listing.
[ <b>Insert</b> ]	Insert a new program line before the selected one.
[ <b>Clear</b> ]	Clears the selected program line.



### Example 1:


Build a program to calculate the area of the base and the volume of cylindrical shape can. The input data is the radius of the base and the height of the can. Calculate the area and volume for for two cans. One of height 25 and radius 10. the other of height 8 and radius 4.5.

### Solution:

First, enter the program for calculating the volume ( $\pi \cdot \text{radius}^2 \cdot \text{height}$ ) following the next sequence:

First, open the **Program Editor** touching the [ G ] [ P / R ] keys in the calculator's keyboard or, select the "New" option in the options's "Program" menu. Then, enter the program following the next sequence:

Keys	Comment
[ G ] [ P / R ]	Shows the Program Editor view.
[  <b>Name ▶</b> ]  New	Clears the program listing and let it ready to enter key-strokes.

Keys	Comment
[ F ] [ LBL ] [ A ]	Start creating a Label for the program.
[ G ] [ x <sup>2</sup> ]	Square of number in stack-X (radius).
[ F ] [ π ]	Enters the number Pi.
[ x ]	Calculates the area of the base, $\pi \cdot (\text{radius})^2$ .
[ R / S ]	Stops the program to show the base area.
[ x ]	Calculates the final volume (height in stack-Y).
[ G ] [ RTN ]	Stops the program and set program line to 000.
[  Name ► ] Name...	Shows a Name entry form to name the program.
Type "Help-Example" and [ Done ]	Name the program "Help-Example".

After the above sequence, the Program Editor view should be as follow:

Program Editor		
Close		Name: Help-Example ►
		Save
#	Code	Keystrokes
001	42, 21, 11	[ F ] [ LBL ] [ A ]
002	43 11	[ G ] [ x <sup>2</sup> ]
003	42 16	[ F ] [ π ]
004	20	[ x ]
005	31	[ R/S ]
006	20	[ x ]
007	43 32	[ G ] [ RTN ]

Finally, tap the [ **Save** ] button to close the view and save the program to the calculator's program memory.

Now that we have the above program in the calculator's program memory, we can calculate the area and the volume of the given cans:

**Solution:** (Assuming FIX format with 4 decimals)

Keystrokes	Display	Description
Type 25 [ ENTER ] 10	10.0000	Enter the height and the radius of the 1 <sup>st</sup> can (height in stack-Y and the radius in stack-X).
[ f ] [ A ]	Running...	Executes the program with label "A".
	<b>314.1593</b>	Program stops showing the 1 <sup>st</sup> can base area.
[ R/S ]	Running...	Resume program execution.
	<b>7,853.9816</b>	Program halts showing the volume of the 1 <sup>st</sup> can.
Type "8" [ ENTER ] 4.5	4.5	Enter the height and the radius of the 2 <sup>nd</sup> can (height in stack-Y and the radius in stack-X).
[ f ] [ A ]	Running...	Executes the program "A"
	<b>63.6173</b>	Program stops showing the 2 <sup>nd</sup> can base area.
[ R/S ]	Running...	Resume program execution.
	<b>508.9380</b>	Program halts showing the volume of the 2 <sup>nd</sup> can.