

Casio Solve

To solve any equation, like $2x^3 - 5x^2 + 4x - 5 = 3x - 7$ we have at least four options. Some of these we have already seen.

Graphical

We can graph $y1 = 2x^3 - 5x^2 + 4x - 5$ and $y2 = 3x - 7$ separately, use the Intersection utility in the **Analysis** menu to get the intersection of the two graphs.

How many solutions can you find?

Try to solve $\sqrt{16 - x^2} = 3 - .5x$ in this manner.

Solve

When solving basic equations with only one unknown variable we can use the built-in **solve** command. From the **Main** window, go into the **Action** menu and choose **Advanced** to bring up,

solve(

Next, type the equation, followed by a comma, the variable you wish to solve for and a closing parenthesis.

For example, to solve $x^2 + 5x - 30 = 0$ for the unknown, you should type:

solve(x^2 + 5 * x - 30 = 0, x)

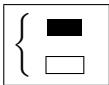
Press **EXE** to get the result.

Solve a System of Linear Equations

Consider the following system of linear equations.

$$\begin{array}{rclcl} 3x & + & 5y & = & 17 \\ -6x & + & 4y & = & 12 \end{array}$$

We will use the 2D feature to find the solutions to this system.

From the Main window bring up the soft keyboard **Keyboard** . Tap on the tab **2D** and tap  . Enter the two equations in the following format.



The solution is $x = 4/21$, $y = 23/7$.