

Lesson 27: Solving Equations on your Calculator

By the end of the lesson, you will be able to:

~Solve equations on your calculator

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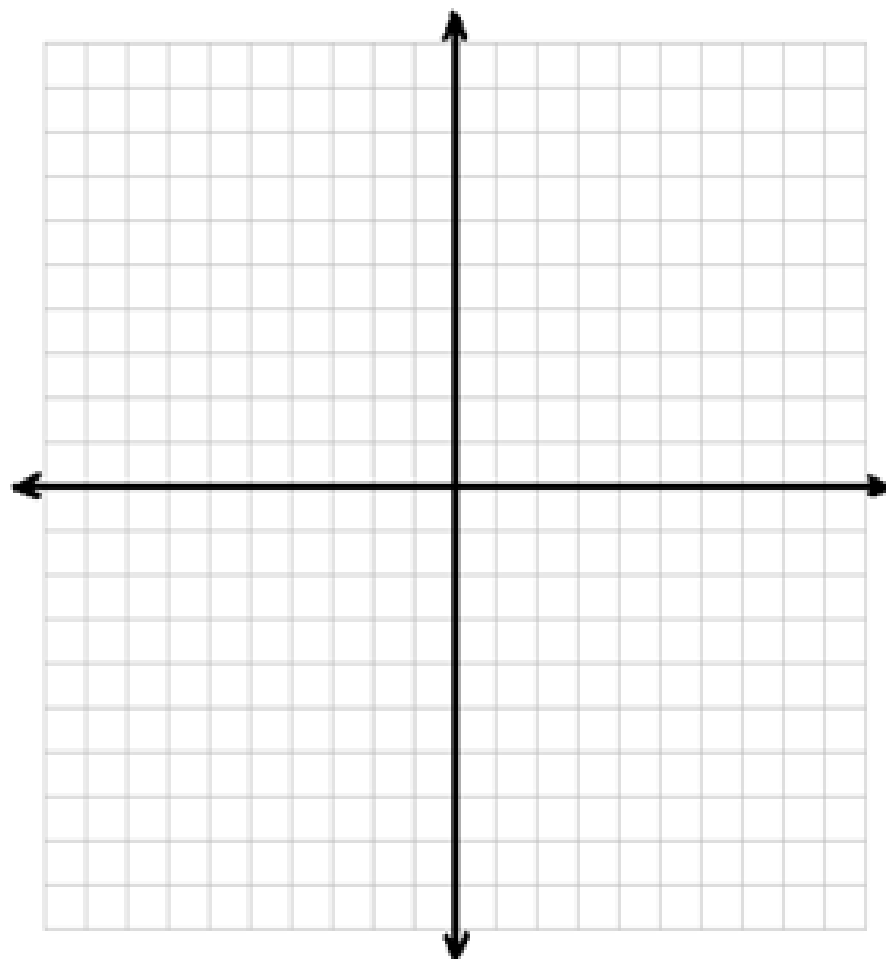
Example 1: Solve for x . (by hand)

$$2x - 6 = 0$$

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Example 2: Solve for x . (by graphing - find x -int and y -int.)

$$y = 2x - 6$$



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We can solve for x on our calculator. Here's how:

"Solve on Your Calculator" or "Finding Zeros":

Get out your TI-84. Turn it on and:

1. Press the "Y=" button.
2. Clear out anything that is the Y= spot.
3. Enter your equation.
4. Press "Graph".
5. Now push "2nd" "Trace". (This is the Calculate screen.)



"Solve on Your Calculator" or "Finding Zeros": Cont.

6. Go down to #2 "Zero". (This will find where the graph crosses the x-axis.)
7. You will need to find a *Left Bound Guess*, a *Right Bound Guess*, and a *Guess*. Press "Enter" after every guess.
8. Write your answer as " $x = \underline{\hspace{1cm}}$ ".
9. You may need to repeat steps 5-8 if there is more than one spot the graph crosses the x-axis.

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Example 3: Solve for x . (On Calc). Remember – first write the equation set equal to zero. (That is the only way to solve for x .)

$$y = 2x - 6$$

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Example 4: Solve for x . (On Calc).

$$x^2 - 16 = 0$$

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Example 5: Find the Zeros. (On Calc).

Remember – first write the equation set equal to zero.

$$|x - 7| = 12$$

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Absolute Values:

Get out your TI-84. Turn it on and:

1. Press the "Y=" button.
2. Clear out anything that is the Y= spot.
3. Push "Math", then arrow over to "NUM". The first option is "abs(". Press enter.
4. You now have "Y1=abs(". Enter an "x" and close the parenthesis.
5. Press the "Graph" button. You should now have a graph of $y=|x|$.

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Example 6: Solve the equation. Round to 3 decimal places.

Remember – first write the equation set equal to zero.

$$y = 3x^3 + 2x^2 - 8x + 7$$

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Example 7: Find the Zeros.

Remember – first write the equation set equal to zero.

$$\sqrt{a+1} = \sqrt{a+6} - 1$$

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By the end of the lesson, you will be able to:

~Solve equations on your calculator

Can you?

Homework: Assignment 27

