

Nov. 16

Day 1 - Solving Linear Systems by Graphing

Name two ways to solve this problem?

$$2(3x - 1) = 4(x + 8)$$

Which method is, on average, quicker and more efficient for solving a multiple choice version of this problem?

In this unit, we will be considering solutions for two different variables in two different equations.

Find the solution to the following system:

$$y_1 = 2x + 3$$

$$y_2 = 4x - 2$$

Soln
(2.5, 8)
x, y

In what ways is this question different from the one on the last slide? With this in mind, how can we solve this problem?

To solve, enter each equation into the calculator and find the intersection points. When solving a system, must report your answers as a set of coordinates. Careful...for linear equations there will only be one solution, but for non-linear equation, there could be many more solutions.

You will be asked to check your work.
Do so using the following method:

Solve the following system, graphically and check your work.

$$\textcircled{1} \quad 2x - y = -1 \quad y_1$$

$$\textcircled{2} \quad 3x + 3y = -6 \quad y_2$$

$$2x - y = -1$$

$$2x = -1 + y$$

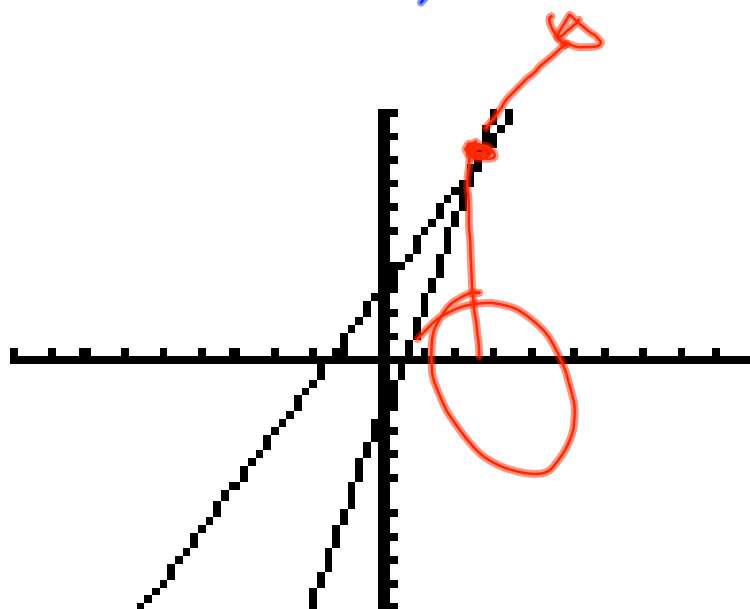
$$\frac{2x + 1}{2} = y$$

$$3x + 3y = -6$$

$$3y = -6 - 3x$$

$$y = \frac{-6 - 3x}{3}$$

$$(-1, -1)$$



Assignment:
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