December 2nd

Due Today: -

Due Next Class: HW 5.1

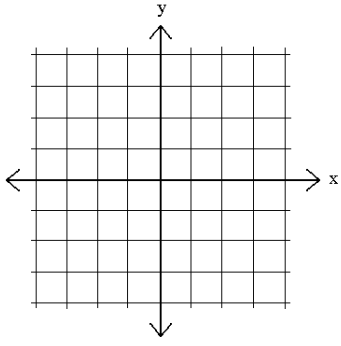
Unit 5: Systems- part 1

Lesson: 5.1- Linear Systems- graphically.

Get Ready: Solve the following:

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

$-2 = -2x + 4 + y - 2$



one variable equation

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

$3x + 6 - 1 = 2x + 3$

$3x + 5 = 2x + 3$

$-5 \quad -5$

$3x = 2x - 2$

$-2x \quad -2x$

$x = -2$

what is the solution?

$x = -2$

two variable equation

$-2 = -2x + 4 + y - 2$

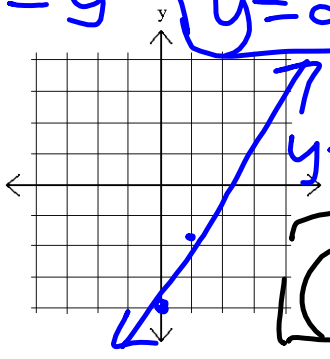
$-2 = -2x + y + 2$

$+2x \quad +2x$

$2x - 2 = y + 2$

$-2 \quad -2$

$2x - 4 = y$ or $y = 2x - 4$



$y = 2x - 4$

$(0, -4)$

what is the solution?

$y = 2x - 4$

Partner Worksheet

C

Taj + Nikki

Marley + Maryam

Heiber + Matt

Zach + Rossaly

Monia + Jasmine

Ruby + Ariana

Jaileen + Bridgette

Caden + Brianly

Alex + Huley

E

Natalie + Neyse

Gabby + ~~Nathan~~ Jayda

Layth + Halley

Jennifer + Jonah

Jormaris + Tom

Matthew + Kayin

Nathan + Tommy

Yanilsa + Anelie + ~~Daniel~~

System of Linear Equations:

Set of equations with the same variables.

Solution to a System:

where the 2 lines intersect

How to GRAPHICALLY Solve a System of Linear Equations:

1. Make sure each equation is in slope intercept form.

2. graph each line- LABEL BOTH YOUR LINES!

3. Identify the point of intersection.

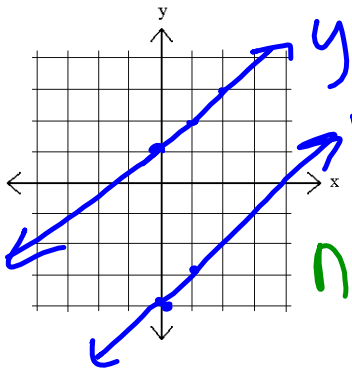
4. Label the solution as a point (2,1)

5. State the x=2 and the y=1 solution.

SPECIAL CASES

$y = x - 4$

$y = x + 1$



y=x+1

y=x-4

no solution

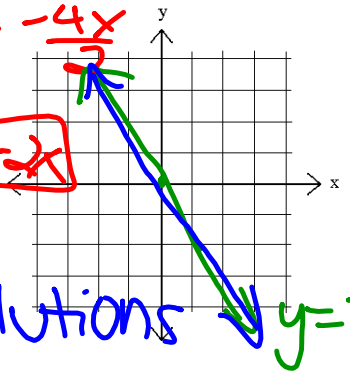
$y = -2x$

$2y + 1 = -4x + 1$

$-1 \quad -1$

$\frac{2y}{2} = \frac{-4x}{2}$

$y = -2x$



∞ solutions

y=-2x

A system of parallel lines has no solution.

A system of the same line has infinite solutions.

Partner Practice

- partner A will complete the ODD numbers and partner B will complete the EVEN numbers

- Even though you have different problems, THE ANSWERS ARE THE SAME!

- you should be on the same problem as your partner!

$y = 2x + 3$

$y = -\frac{1}{2}x + 3$

$y = 2x - 3$

$y = \frac{-1}{2}x - 3$

Recap

Key Points

Solving Systems of Equations Graphically

Due Next Time:

HW 5.1
Video 5.1

Next Class:

Quiz Friday