Objectives:
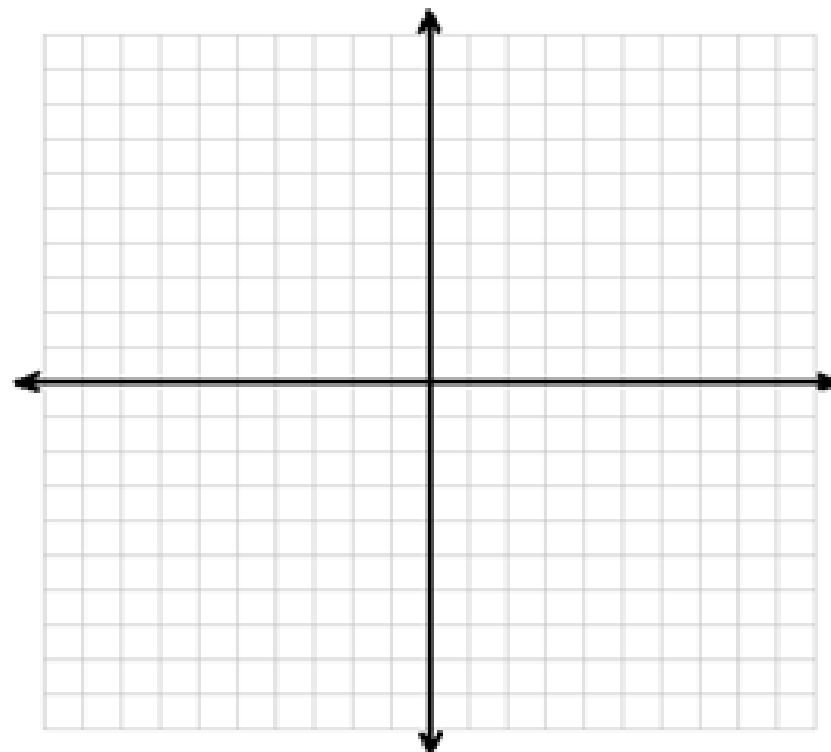
~ Graph two lines by hand (x and y int) and find the point of intersection - the solution.

~ Graph two lines on Calculator and find the point of intersection - the solution.

review

GraPHING LINEar EQUATIONS (X anD Y INTercePTS)
GraPH THE FOLLOWING EQUATION: X + Y = 5

review

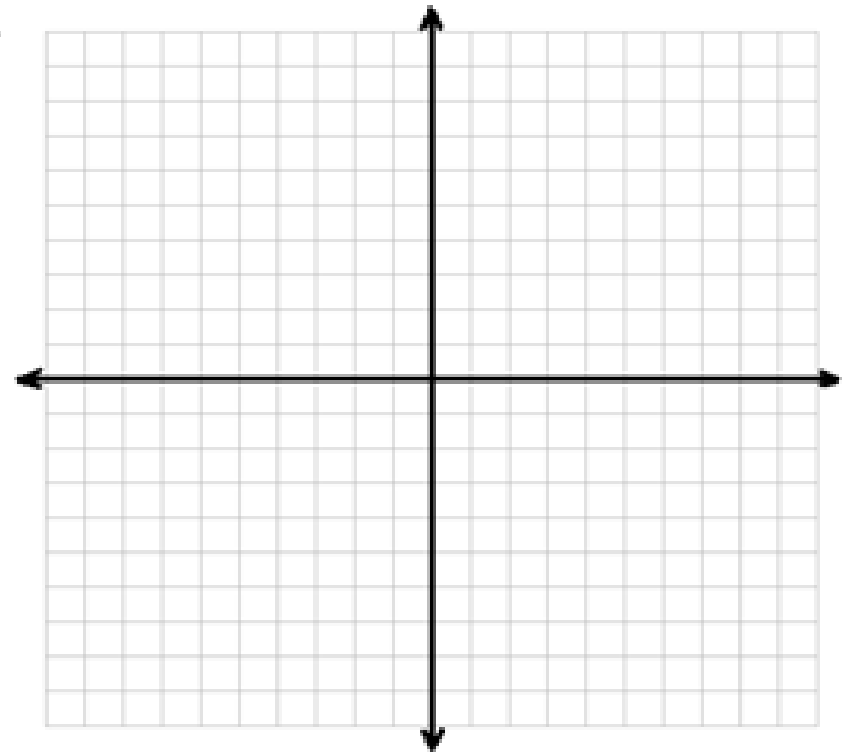## GRAPHING LINEAR EQUATIONS

GRAPH THE FOLLOWING EQUATION: $3X - 2Y = 20$
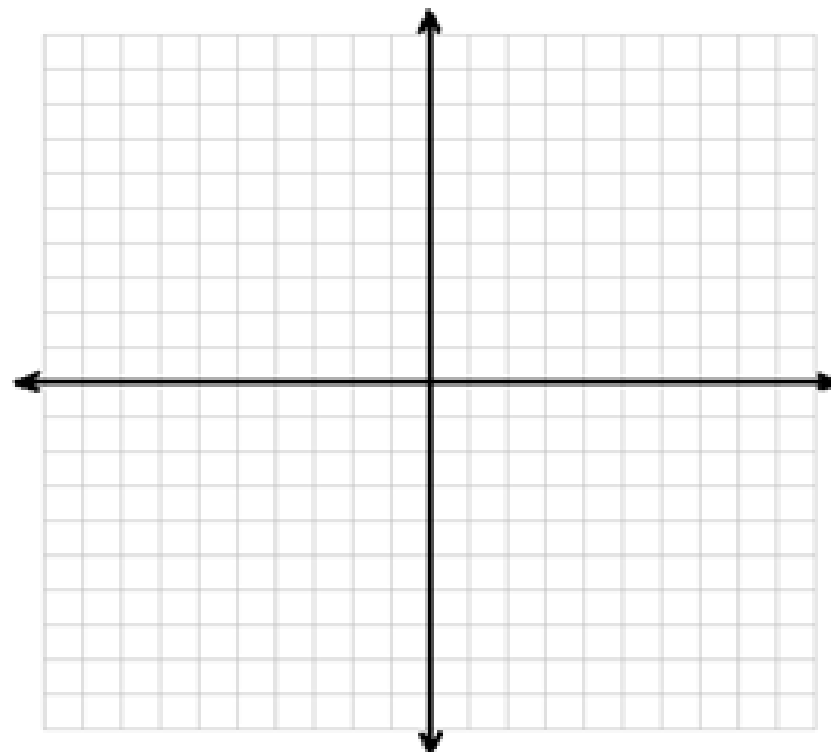
SYSTEMS OF EQUATIONS

Graph X + Y = 5 and 3X - 2Y = 20 on the same graph.

These two equations together make a SYSTEM OF EQUATIONS.

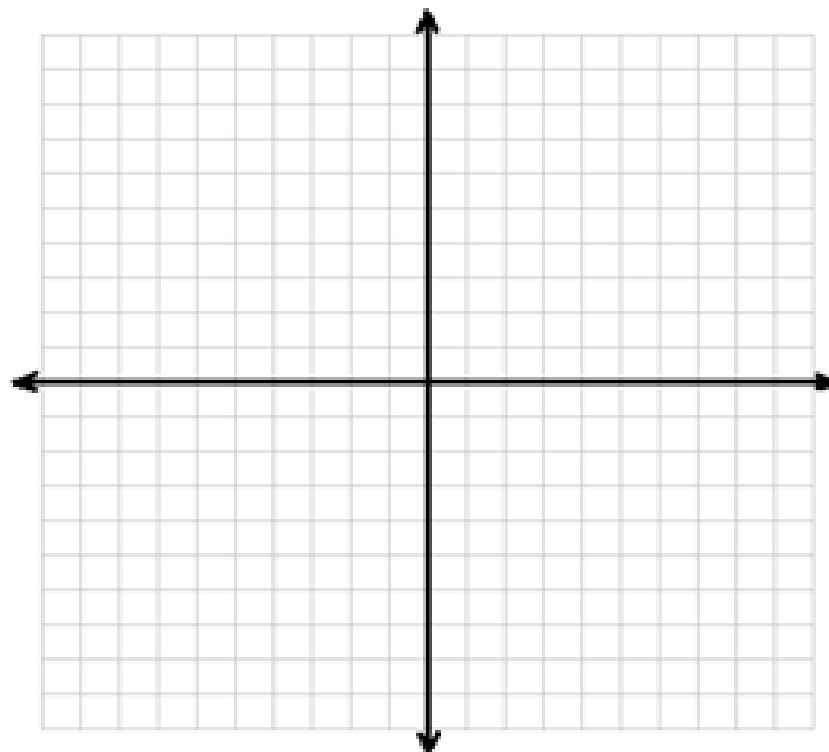The point in which the 2 lines intersect is known as the SOLUTION for the system of equations.

Example 1:

SOLVE THE SYSTEMS OF EQUATIONS BY GRAPHING BY HAND (X AND Y INTERCEPTS)

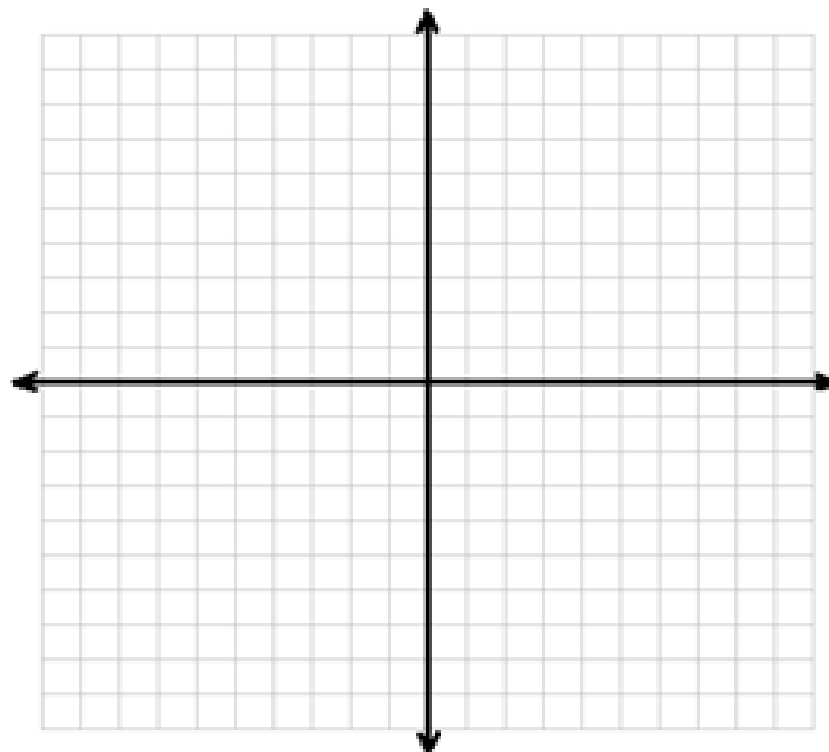$$X + Y = 6$$

$$3X - 4Y = 4$$

CHECK (PLUG IN SOLUTION):

Example 2:

SOLVE THE SYSTEMS OF EQUATIONS BY GRAPHING BY HAND (X AND Y INTERCEPTS)
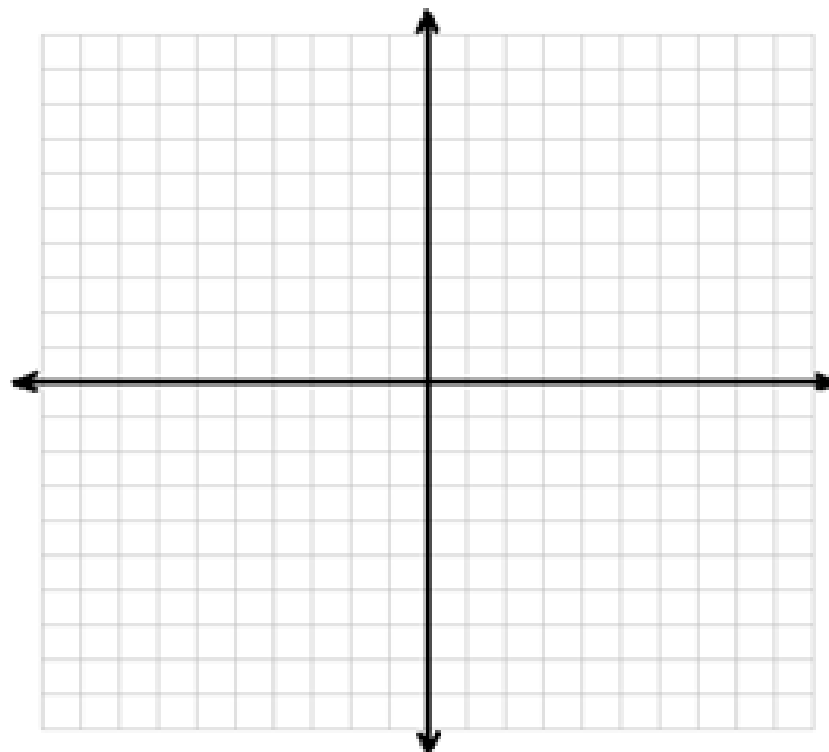
$$3X - Y = 0$$
$$X - Y = -2$$

CHECK (PLUG IN SOLUTION):

Example 3:

SOLVE THE SYSTEMS OF EQUATIONS BY GRAPHING WITH CALCULATOR

$$2X + Y = 4$$
$$X - Y = 2$$

CHECK (PLUG IN SOLUTION):

To find the intersection on the calculator:

1. Graph the two lines.
2. Push the "Trace" button. Arrow over until you are close to the intersection.
3. Now, push 2nd Trace - this is "CALC". Arrow down to #5 Intersect and hit "Enter".
4. It will ask for a First Curve Guess and a Second Curve Guess. Hit enter twice. (You should already be as close as you can get to the intersection.) This should give you the intersection (x and y).
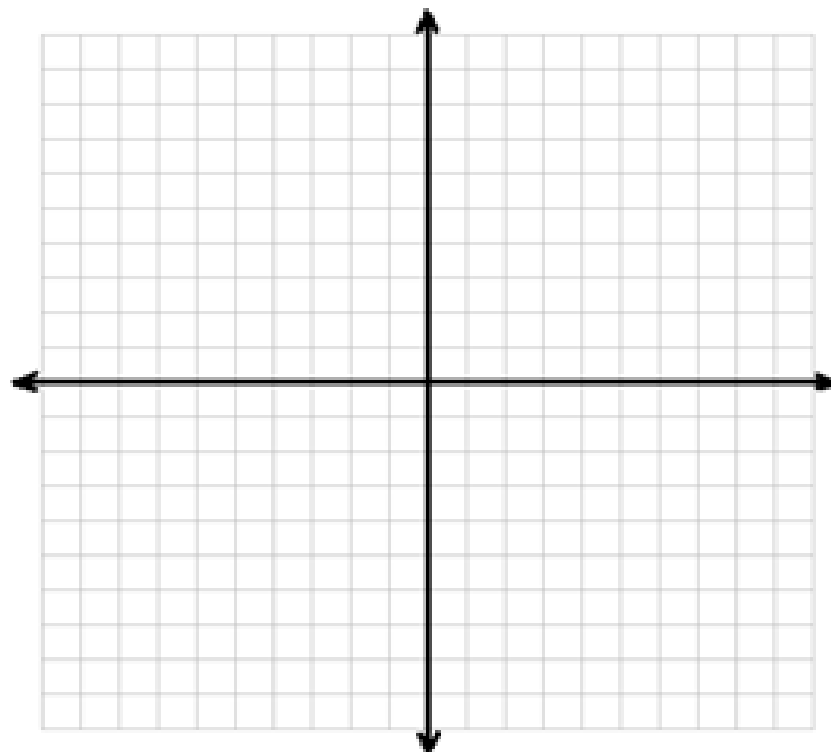
Example 4:

SOLVE THE SYSTEMS OF EQUATIONS BY GraPHING BY CALCULATOR
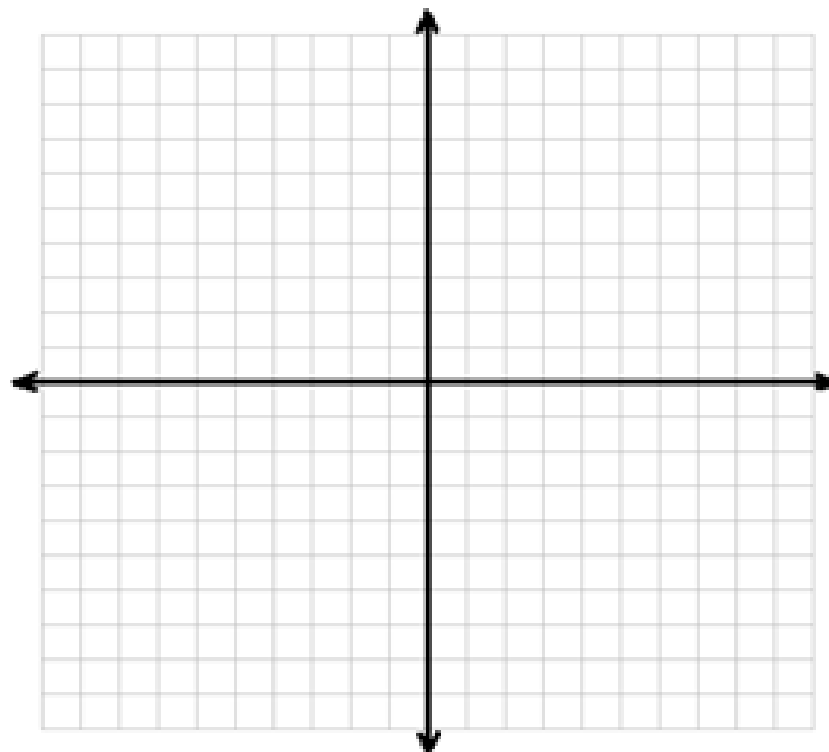
$$X + Y = 2$$
$$X + Y = 6$$

CHECK (PLUG IN SOLUTION):

Example 5:

SOLVE THE SYSTEMS OF EQUATIONS BY GraPHING BY CalCuLATOr

$$2Y - 8 = X$$
$$Y = \frac{1}{2} X + 4$$

CHECK (PLUG IN SOLUTION):

Objectives:

~ Graph two lines by hand (x and y int) and find the point of intersection - the solution.

~ Graph two lines on Calculator and find the point of intersection - the solution.

Can you?

Homework: Due next time
Review for Test 2 worksheet

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Homework: Due class after test
Assignment 9

"New" part of Assignment 9

Pg 129: # 9, 11, 23-27 odd - NO calculator!

Instructions: Graph the system of equations and state its solution (point, no solution, infinite solutions).

Pg 129: #39, 41 and Pg 125: #5, 7 - You may use a Calculator.

Instructions: Write problem, Solve for y, write point (solution)

&

"Review" part of Assignment 9 - Pay attention to when you CAN and CANNOT use a calculator.