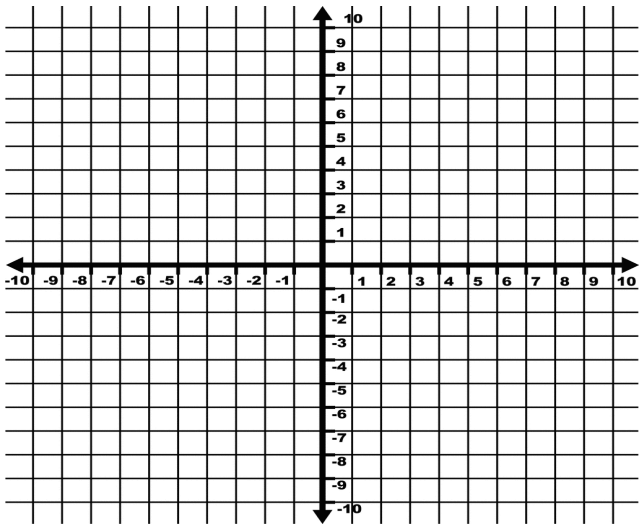
Warm Up

*Hand back tests-Go over them!

*Check answers to homework

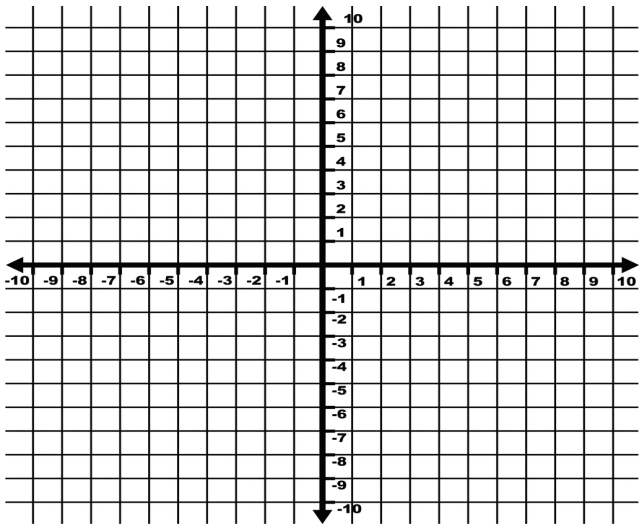
Oct 27-8:09 PM

*Prereq CH 3 worksheet



Oct 27-8:09 PM

*Prereq CH 3 worksheet



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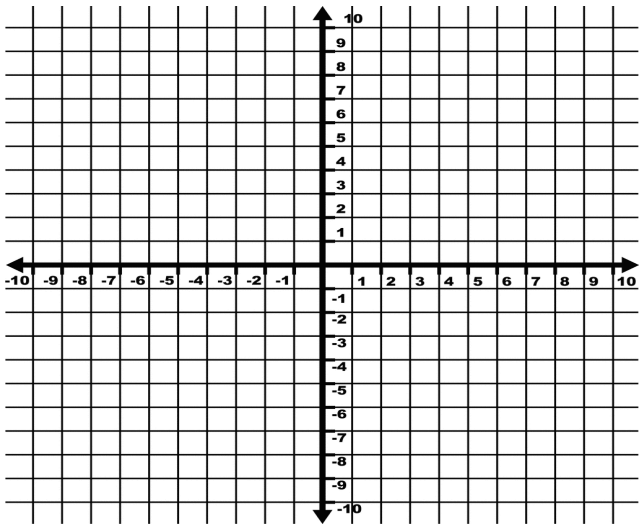
*Prereq CH 3 worksheet



Oct 27-8:09 PM

Chapter 3
Systems
(Ch3.1/3.2)Solving Systems Graphing and Algebraically

Sep 9-8:26 PM

I. 2-Varable Systems

Graphing Method

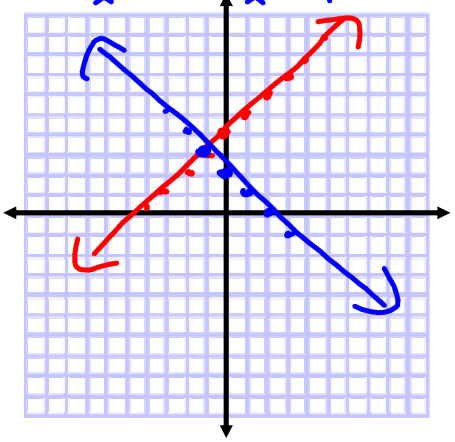
1. Solve the equations for y.

2. Graph by plotting the y-int and using slope to find another point.

3. Solution is the intersection point. (-1, 3)

$2x-2y=-8$ $y=x+4$

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



I. 2-Varable System

Substitution Method

1.Solve one equation for x or y.

2.Substitute this expression into the other equation and solve.

3.Substitute the value to find the other variable.

$2x-2y=-8$

$x+y=2$

$-y \quad -y$

$x = -y+2$

$x+3=2$

$-3 \quad -3$

$x=-1$

$2(-y+2)-2y=-8$

$-2y+4-2y=-8$

$-4 \quad\quad -4$

$\frac{-4y}{-4} = \frac{-12}{-4}$

$y=3$

$(-1, 3)$

I. 2-Varable Systems

Elimination/Combination Method

1.Multiply one or both equations to get opposites for one variable.

2. Add the equations. Solve.

3. Substitute the value to find the other variable.

$2x-2y=-8$

$2(x+y=2)$

$2x+2y=4$

$2x-2y=-8$

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

$x=-1$

$-1+y=2$

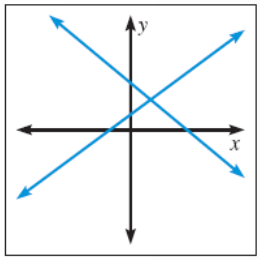
$+1 \quad +1$

$y=3$

$(-1, 3)$

II. Number of Solutions

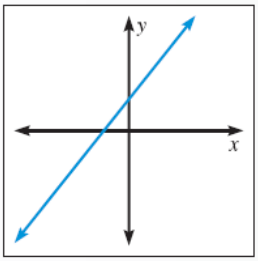
Graphically



Exactly one solution

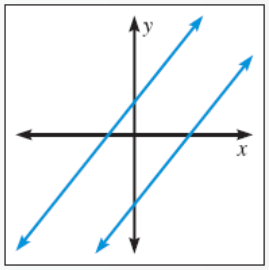
consistent
independent
(one solution)

at least one solution



Infinitely many solutions

consistent
dependent
(many solutions)



No solution

inconsistent

Algebraically

x=

y=

0=0

∞ many solution

0=4

No solution

Sep 9-9:21 PM

III. Application Problems

Solid Mixture Problem

A company is making a 20 pound trail mix to sell for $.93 a pound. The peanuts are $.79 per pound and the M&Ms are $1.49 per pound. How many pounds of each must they mix?

x = peanuts y = m&m's

$.79x + 1.49y = .93(20)$

$-.79(x + y = 20)$

$-.79x - .79y = -15.8$

$.79x + 1.49y = 18.6$

$.7y = 2.8$

$y = 4$ lbs M&Ms

$x + 4 = 20$

$x = 16$ lbs peanuts

Nov 12-7:26 AM

*Try problems #1-3 on Blue ws

Nov 13-8:19 AM

III. Application Problems

Coin Problem

Max has some quarters and dimes in his pocket. If he as twice as many quarters as dimes, for a total of $4.20, find the number of quarters and dimes in his pocket?

x = quarters .25 y = dimes .10

$.25x + .10y = 4.20$

$x = 2y$

$.25(2y) + .10y = 4.20$

$.5y + .10y = 4.20$

$.60y = 4.20$

$y = 7$ dimes

$x = 2(7)$

$x = 14$ quarters

Nov 12-7:27 AM

*Try problems #4-6 on Blue ws

Nov 13-8:19 AM

III. Application Problems #7-10

Number Problems

One number is twice the second number minus one. Their sum is 32. Find the numbers.

x = One # y = 2nd #

x = 2y - 1

x + y = 32

2y - 1 + y = 32

3y - 1 = 32

+1 +1

3y = 33

y = 11

x = 2(11) - 1

x = 22 - 1

x = 21

Nov 12-7:27 AM

*Try problems #7-10 on Blue ws

Nov 13-8:19 AM

III. Application Problems

Investment Problem

Mrs. Watkins invests $4000- some at 4% and the rest at 5%. Find the amount invested at each rate of interest if the tota annual return is $190.

X = $ invested @ 4% .04

Y = $ invested @ 5% .05

$X + Y = 4000$

$.04x + .05y = 190$

#11-13

Nov 12-7:27 AM

*Try problems #11-13 on Blue ws

Nov 13-8:20 AM

III. Application Problems #14-16

Geometry Problems

The length of a rectangle is three times the width. If the area is 75 square inches, find each dimension.

$A = lw$ l = length w = width

$l = 3(5)$

$l = 15$

$l = 3w$

$75 = lw$

$75 = 3w(w)$

$75 = 3w^2$

$\frac{75}{3} = \frac{3w^2}{3}$

$\sqrt{25} = \sqrt{w^2}$

$w = 5$

*Try problems #14-16 on Blue ws

Nov 13-8:20 AM

Homework:

-Unit Plan Day 1 (3.1/3.2)

-Blue Word Problem WS due Day 3

(Quiz on Day 3-next week)

Nov 2-1:43 PM