Warmup 11/(The only positive number

that is three times the sum of its digits) (This is Week 7!)

- 1. Write about what you did during thanksgiving break.
- 2) Describe, in words, how you would graph the following equation:

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

#3 and #4 will be on the next two slides.

1 minute challenge

- I am going to show you an equation with TWO VARIABLES in it. (x and y)
- $\,^{\circ}\,$ You will need to find as many solutions as you can. This will be an (x, y) pair that works in the equation.
- FOR EXAMPLE, IF YOUR EQUATION WAS y = 3x, you could use (2, 6), because if x = 2, then y = 6.
- MAKE A LIST of your solutions on a blank piece of paper. The person with the most in one minute wins.
 You must write each solution as an ordered pair.

1 minute:

• Find as many solutions to this equation as you can:

x + y = 11

1 minute:

• Find as many solutions to this equation as you can:

y = 2x - 1

Reminder:

- There was no ALEKS due today, but there will be 60 minutes due next Monday.
- Anything you did over break, or Monday/Tuesday last week, or this upcoming week will count.

Go over Equations Test

May Retake individual tasks

New Unit: Systems of Equations

Is there a solution for **both** equations???

$$y = 2x - 1$$
$$x + y = 11$$

•A **system of equations** is a set of more than one equation.

• To solve a system of equations, find the (x, y) pair that works in BOTH equations!!! Do you think there is ANOTHER pair of numbers besides (4, 7) that works in both?

y = 2x - 1 x + y = 11

Remind me: what does the GRAPH of an equation like this look like?





Which (x, y) works for BOTH? x - y = 7 xy = 30



Which (x, y) works for BOTH?

$$x + y = 5$$

 $x + y = 10$

Which (x, y) works for BOTH?

$$y = -\frac{1}{3}x + 4$$

$$y = \frac{3}{2}x - 7$$

n. 1	Consecutive Sums Project
n. 2	Converting Fractions and Decimals (1.1)
p. 3	Roots (1.8 & 1.9)
p. 4	Solving x ² and x ³ Equations (1.8)
p. 5	Rational vs. Irrational (1.1)
р. б	What is a function?
р. 7	Function Notation: f(x)
р. 8	Worksheet: Graphing Functions
p. 9	Linear vs. Nonlinear Functions
p. 10	Slope
p. 11	Graphing Linear Functions – Looking for Patterns
p. 12	Slope-Intercept Form
p. 13	Slope-Intercept Story Problems
p. 14	1 and 2 Step Equations
p. 15	Equations w/ Variables on Both Sides
p. 16	Equations with Distributive Property
p. 17	Equations with no solution or Infinite Solutions
p. 18	Solving Systems by Graphing
	8-18





• To solve a system of equations, find the (x, y) pair that works in BOTH equations!!!

Solving by Graphing

 It is pretty difficult to solve most systems just by looking at them. However, if you know how to graph the equations, then finding the point of intersection can be easy!













