Math Enrichment Program

WELCOME!

LINEAR EQUATIONS

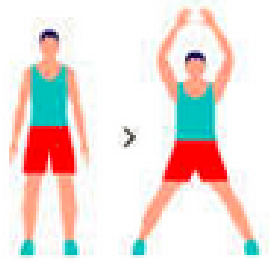
Agenda:

- Warm ups
- Pop Up Questions
- Linear Equations
- Game
- Reflection

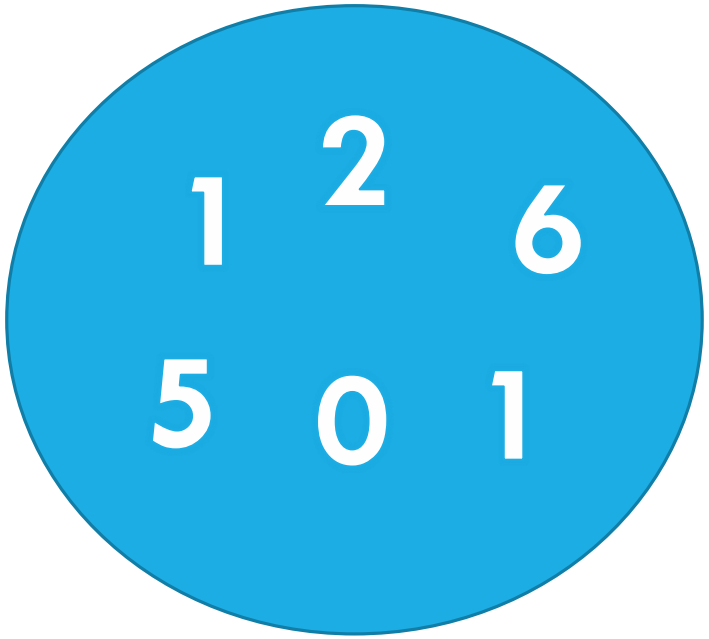
This session will be recorded for learning purposes. Learning purposes include: a lesson review for students who are absent, students who want to review for a test, etc.

WARM UP - FILL IN THE BLANKS

PLACE ONE DIGIT IN EACH BOX TO MAKE THE STATEMENT TRUE



$$\sqrt{\square\square} + \sqrt{\square} = \sqrt{\square\square} + \sqrt{\square}$$



POP – UP #1

1) f(x) is a linear function represented by the given table of values; which of the following choices represents f(x)?

x	f(x)
0	-2
1	1
2	4
3	7
10	28

A) $f(x) = -5x + 1$

B) $f(x) = 3x - 2$

C) $f(x) = x^2$

D) $f(x) = 5$

POP – UP #2

2) Fill in the blank,

1, 1, 2, 3, 5, 8, 13, 21, 34, ____ , 89, 144.

A) 50

B) 100

C) 55

D) there is no pattern

POP – UP #3

For the linear function $y = -3x + 5$; if $x = 0$, then $y = ?$

A) -3

B) 5

C) -5

D) can't be found

POP – UP #4

4) Fill in the blank,

80, 72, 64, ____ , 48, 40, ...

A) 54

B) 56

C) 58

D) No pattern

POP – UP #5

5) For the linear function y = -10

for each one unit increase in x the y-value is decreased by 10.

A) True

B) False

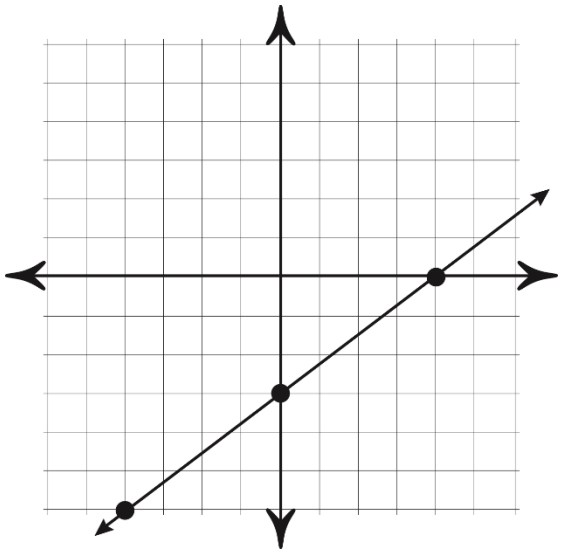
Write the Linear Equation for Each Graph

$$y = mx + b$$

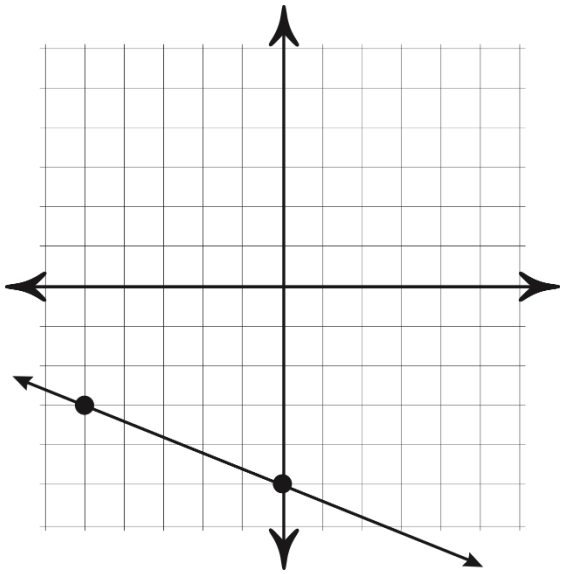
Slope Intercept Form

Slope — y-intercept

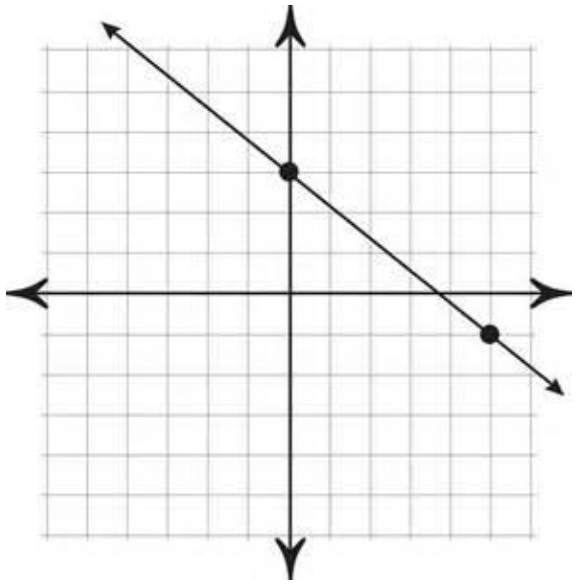
A



B

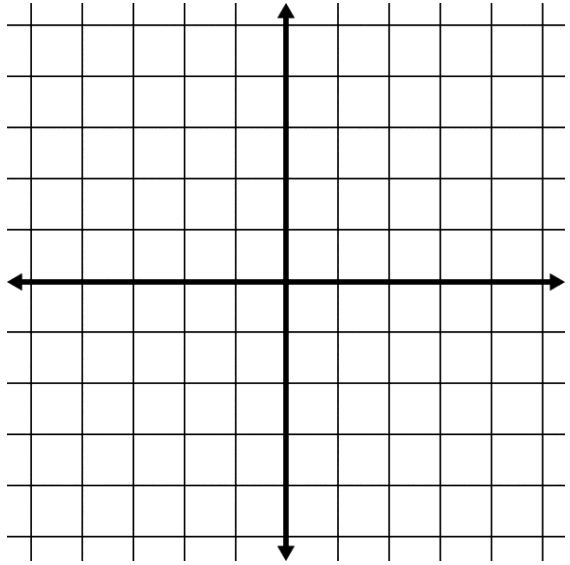


C

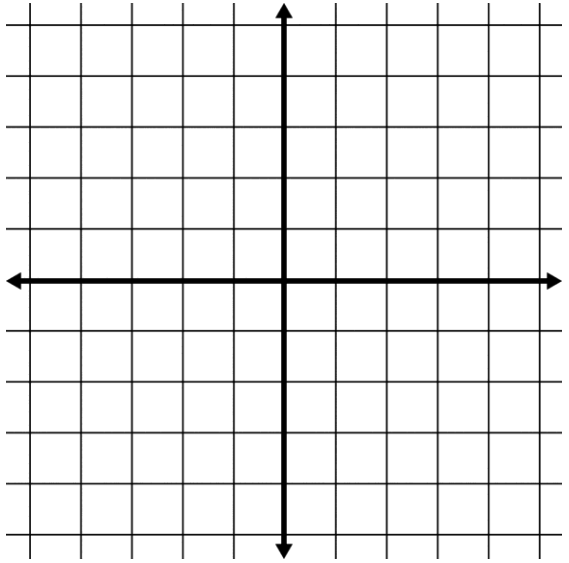


Graph Each Linear Equation

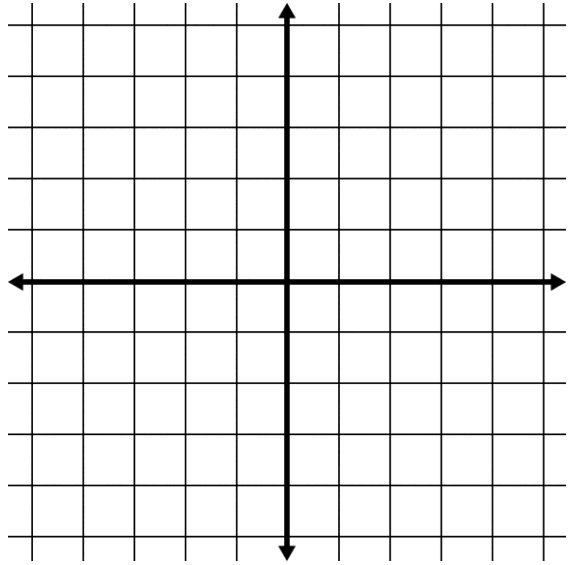
$y = \frac{1}{2}x - 1$



$y = -3x + 2$



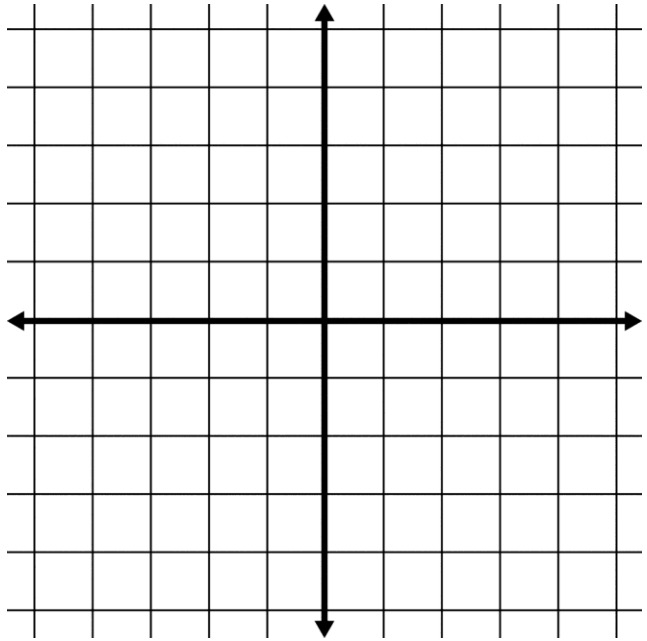
$y = x - 4$



How can you graph this equation?

$2x + 6y = 6$

Standard Form



Convert Each Standard Form Equation to Slope-Intercept Form:

$8x + 4y = 16$	$x - 2y = 6$	$2x – 5y = -20$

Convert Each Standard Form Equation to Slope-Intercept Form:

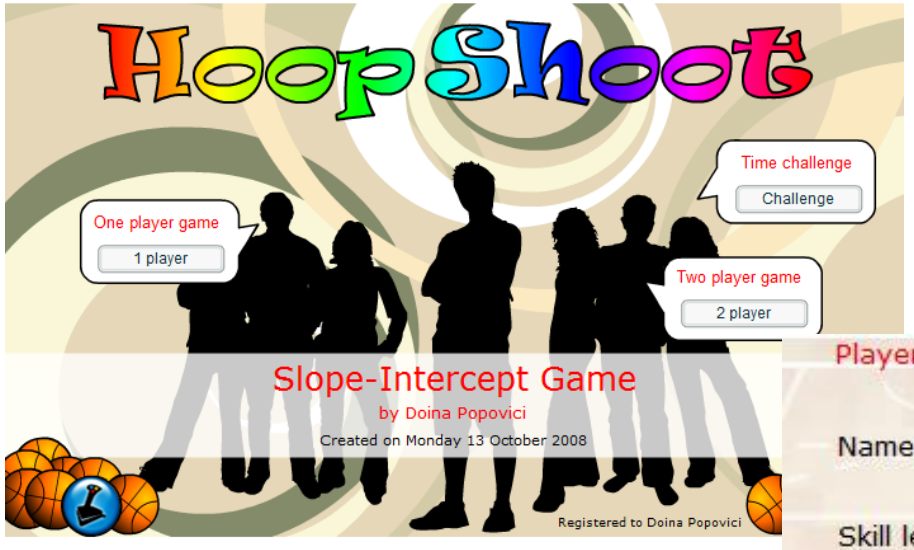
$6x + 3y = 27$	$-6x + \frac{3}{4}y = 9$	$-\frac{3}{4}x - \frac{1}{2}y = 3$

Name	Score

Individual Practice: Let's Shoot Some Hoops!

Directions:

- Click on link in chat box. (http://www.math-play.com/slope-intercept-game.html)
- Choose 1 player
- Complete the player options.
- Answer the 10 questions about converting standard form to slope-intercept.
- Write your name and score in the table when finished.



Type your name, choose a skill level, and team color. Then click "Play".

REFLECTION

Please write on the board

Write TWO things you learned TODAY