WARM-UP

Determine the slope and x/y intercepts given the line...

$3x - 6y + 12 = 0$

$-6y = -3x - 12$

$\frac{-6y}{-6} = \frac{-3x}{-6} - \frac{12}{-6}$

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

$m = \frac{1}{2}$

y int = 2

(0, 2)

x-int (let y = 0)

$3x - 6(0) + 12 = 0$

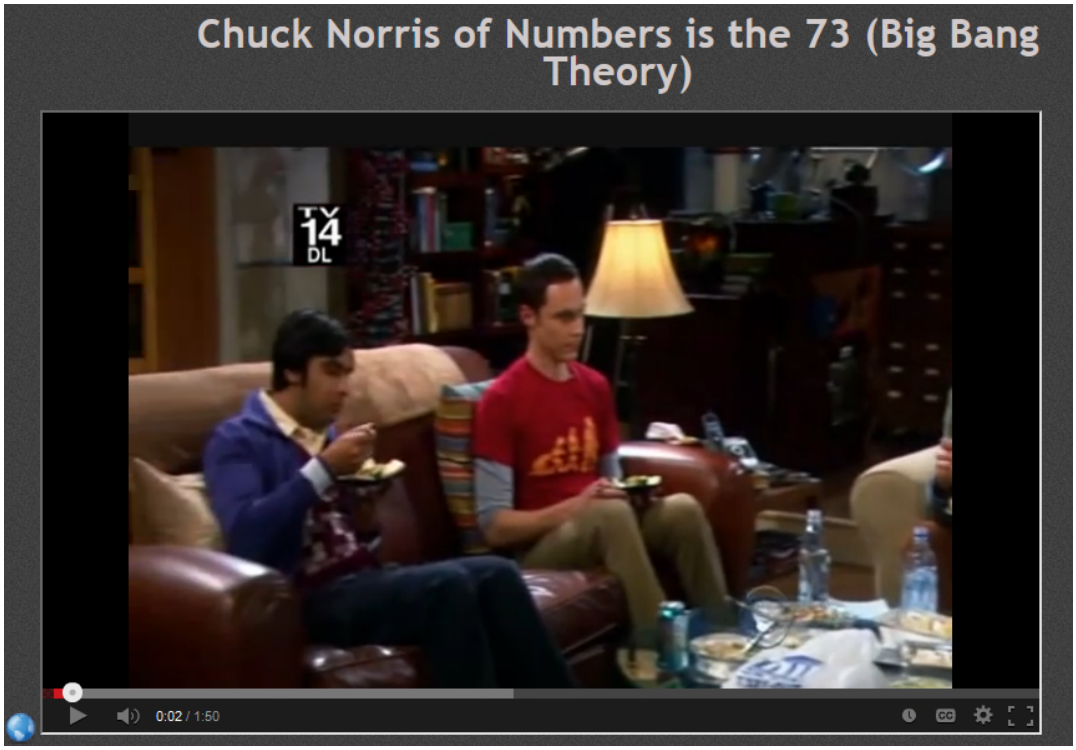
$3x + 12 = 0$

$\frac{3x}{3} = -\frac{12}{3}$

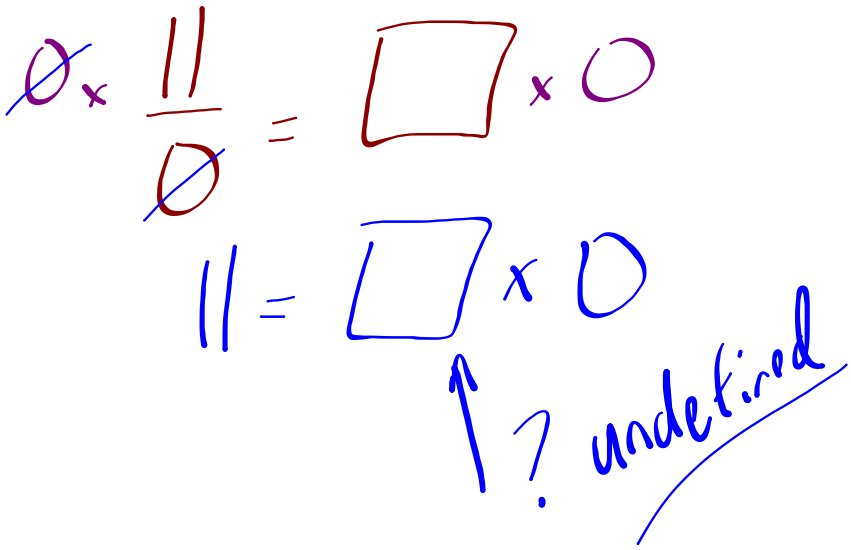
x int = -4

(-4, 0)

Favorite Numbers... What's Sheldon's???



WHY WE CAN'T DIVIDE BY ZERO...



Graphing Linear Functions

NOTES - Graphing Linear Relationships.docx

Method #1 - Table of Values (must have at least 3 points)

* $y = mx + b$

ex: $3x - 6y + 18 = 0$

$-6y = -3x - 18$

$\frac{-6y}{-6} = \frac{-3x}{-6} - \frac{18}{-6}$

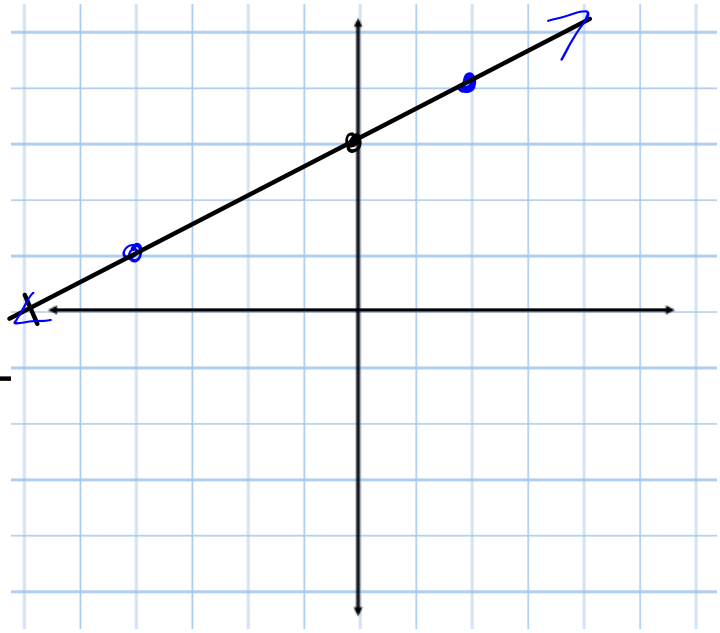
$y = \frac{1}{2}x + 3$

sub

x	y
0	3
-4	1
2	4

y int

$\frac{1}{2}(-4) + 3$

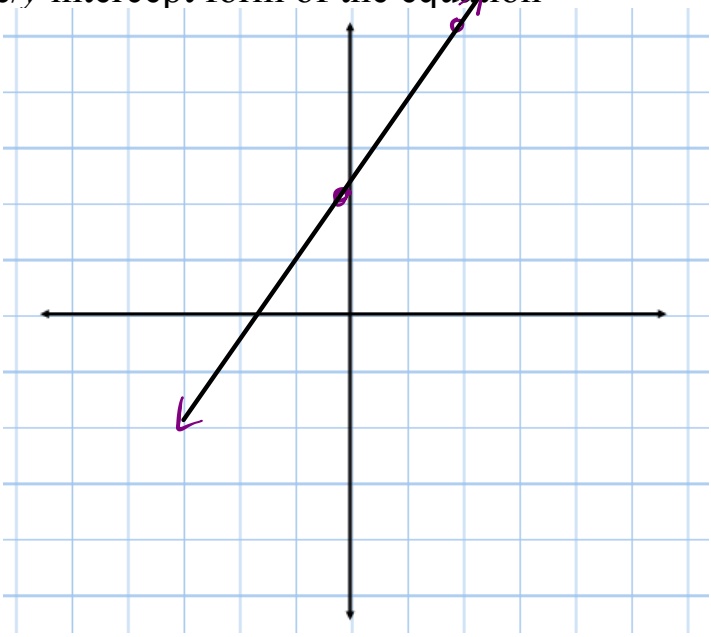


Method #2 - Using the slope/*y* intercept form of the equation

- put equation in the form.

$y = mx + b$

- plot the *y* intercept
- use slope = $\frac{\text{Rise}}{\text{Run}}$ to plot other points.



ex: $3x - 2y = -4$

$-2y = -3x - 4$

$\frac{-2y}{-2} = \frac{-3x}{-2} - \frac{4}{-2}$

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

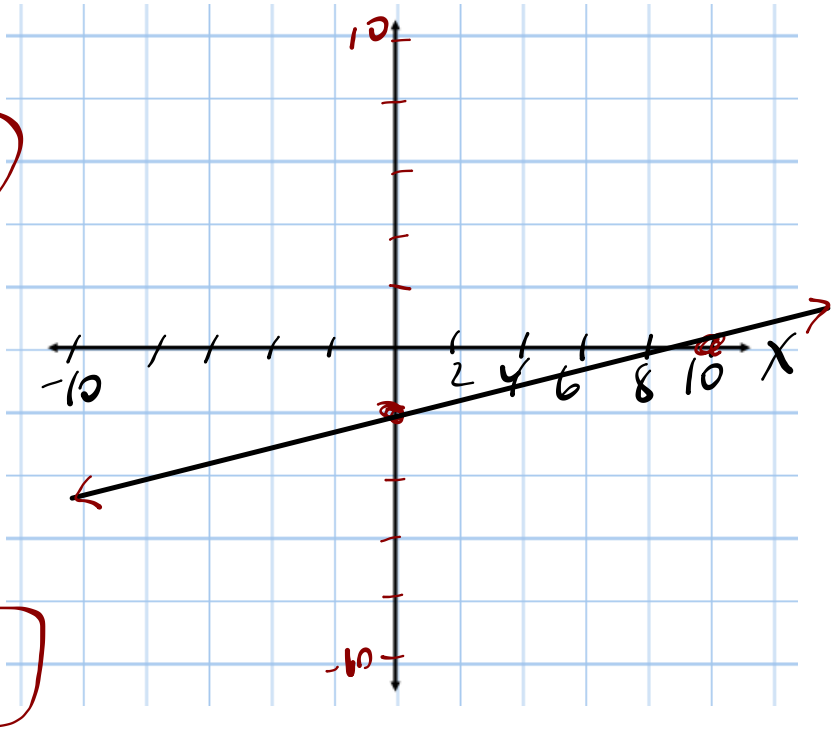
Rise 3

Run 2

y int

Method #3 - Using x / y intercepts

ex: $x - 5y - 10 = 0$



x-int (let y = 0)

$x - 5(0) - 10 = 0$

$x - 10 = 0$

$x^{int} = 10$

(10, 0)

y-int (let x = 0)

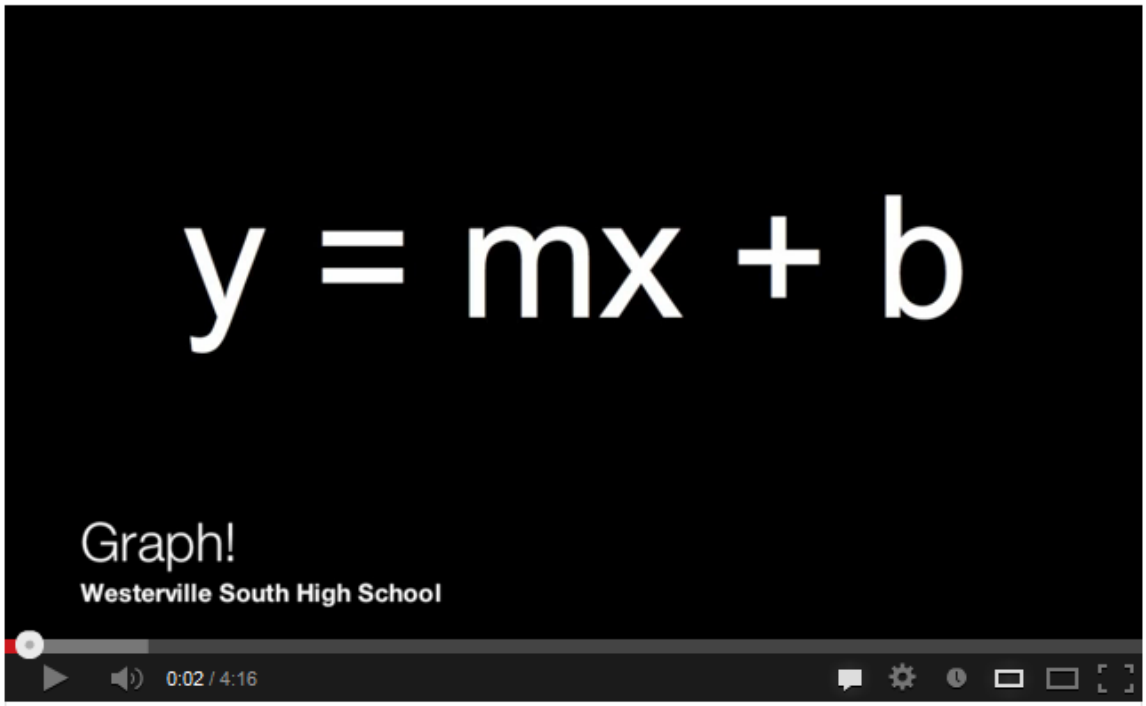
$0 - 5y - 10 = 0$

$-5y = 10$

$\frac{-5y}{-5} = \frac{10}{-5}$

$y^{int} = -2$

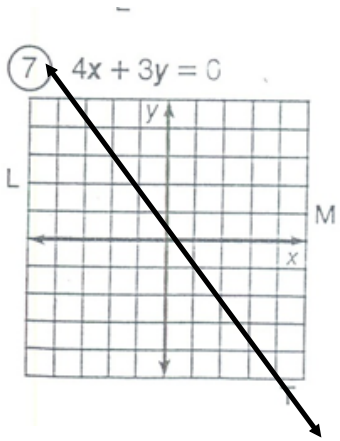
$(0, -2)$



Graph! (WSHS Math Rap Song)

HOMEWORK...

Puzzle Worksheet - Graphing Lines.docx



Attachments

NOTES - Graphing Linear Relationships.docx

Puzzle Worksheet - Graphing Lines.docx