Math Virtual Learning

Algebra 1 S1/Graphing in Standard Form

April 10, 2020

Grade/Course

Lesson: April 10, 2020

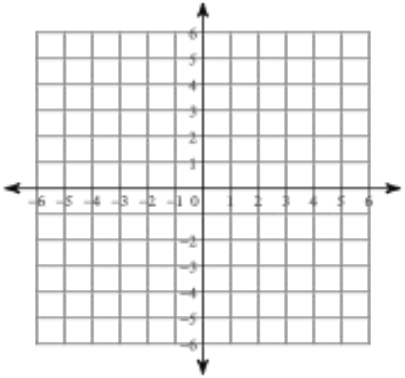
Objective/Learning Target:

Students will graph a line in Standard Form

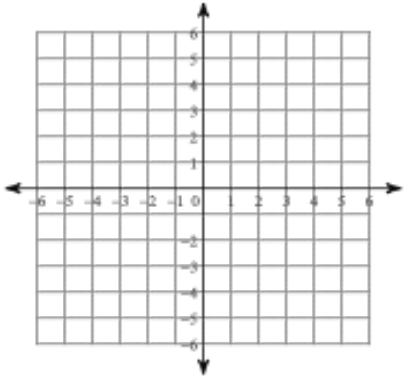
Bell Work

Sketch the graph of each line.

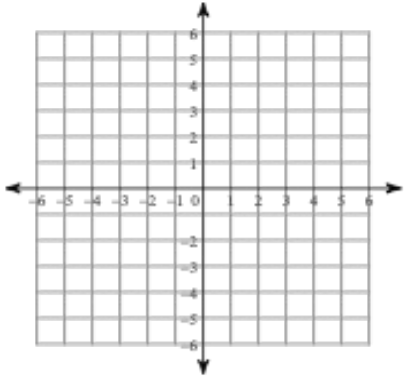
1) $y = -8x - 4$



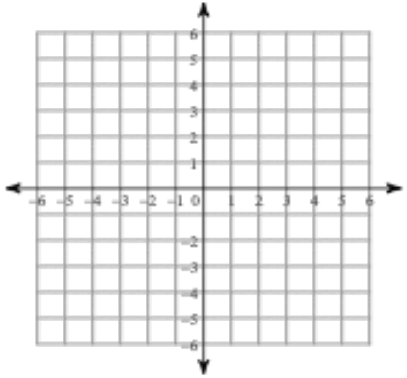
2) $y = -x + 5$



3) $y = 2x$



4) $x = -4$

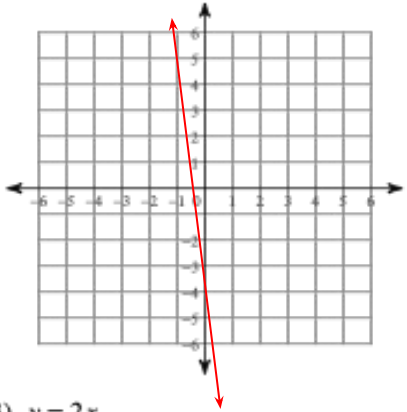


Bell Work

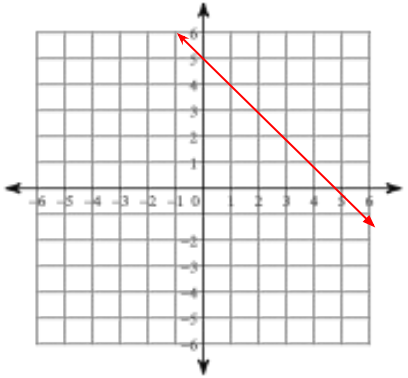
Answer Key

Sketch the graph of each line.

1) $y = -8x - 4$



2) $y = -x + 5$



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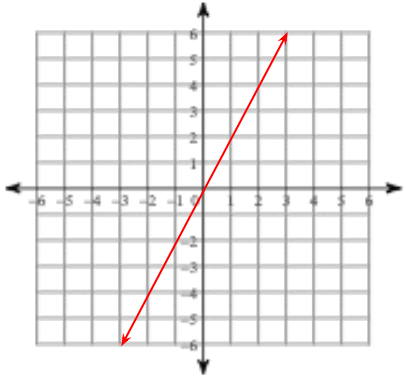
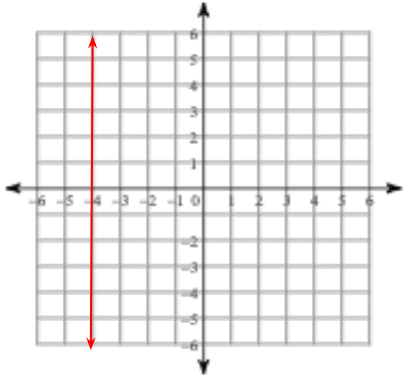


4) $x = -4$



Click to watch both videos.

Video 1

Video 2

Linear Equations

Standard form	Slope intercept form
Ax + By = C X's and Y's are on the same side of the equation The A's and B's don't give us any useful information. A,B and C are integers	y = mx + b
Easy to find X, Y intercepts and slope.	Easy to find the slope and y-intercept.
-3x + 2y = 6 X int: (-2, 0) Y: (0, 3)	y= 3/2x + 3 m= 3/2 and b = 3
Graph it.	Graph it.

Identify which equations below are in standard form

Equation 1: $2x + 5 = 2y$

Equation 2: $2x + 3y = 4$

Equation 3: $y = 2x + 3$

Equation 4: $4x - \frac{1}{2}y = 11$

ANSWER:

Equation 2 and equation 4 are the only ones in standard form.

Equation 3 is in Slope intercept form

What form is this equation in?

$4x + 5y = 20.$

Find the intercepts and the slope.

1. The x intercept is 20/4 = 5
2. The y intercept is 20/5 = 4
3. The slope is -4/5

What form is this equation in?

$$y = -\frac{4}{5}x + 4$$

What information can I pull from the equation?

How to Graph from Standard Form

Find the intercepts and graph the following equation: $3x + 2y = 6$

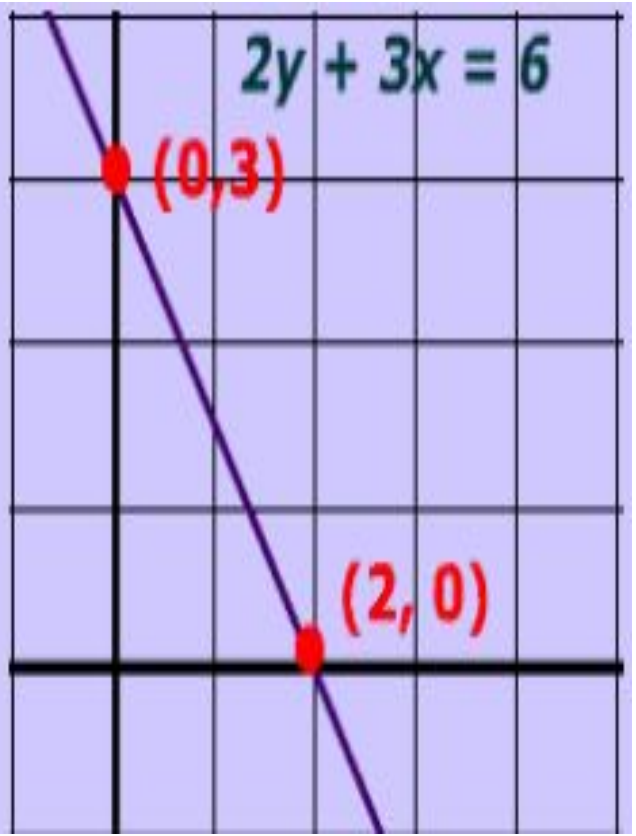
How to find the x intercept

Set y = 0	3x + 2(0) = 6
Solve for x	$3x = 6$ $\frac{3x}{3} = \frac{6}{3}$ $x = 2$

How to find the y -intercept:

Set x = 0	3(0) + 2y = 6
Solve for y	$2y = 6$ $\frac{2y}{2} = \frac{6}{2}$ $y = 3$

Plot the x and y intercepts and draw the line on the graph paper!



Click the link, and answer the practice problems.
Check the answers at the end of the document.

Practice