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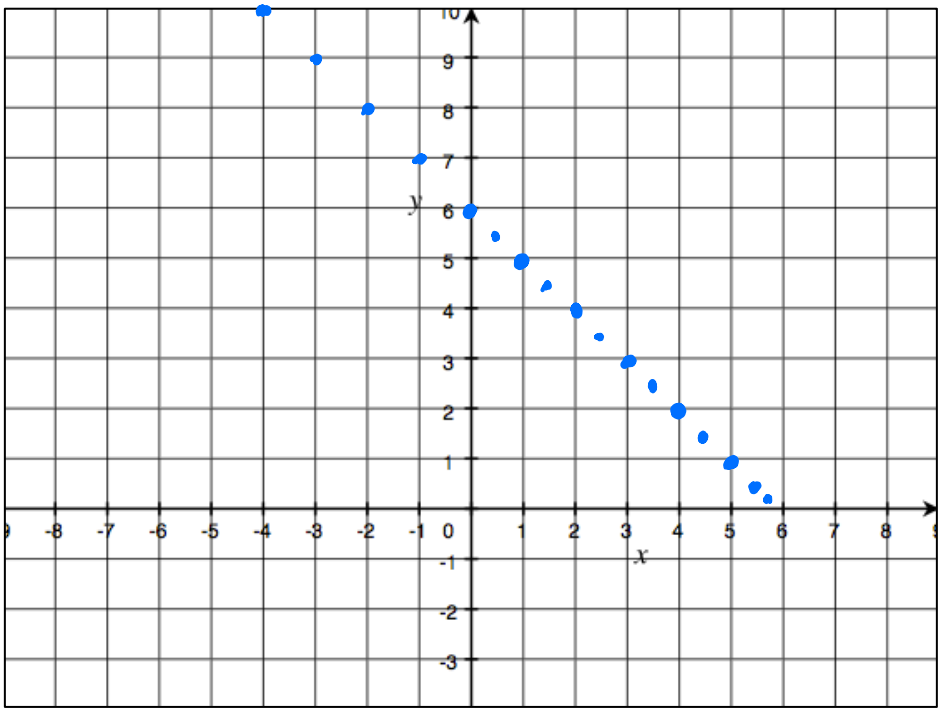
LEARNING OBJECTIVE: We will graph linear equations using the standard form of a linear equation. (G8M4L12)

CONCEPT DEVELOPMENT:

We can use the standard form of linear equations ($ax + by = c$) to graph linear equations

Example: $x + y = 6$

x	y
0	6
1	5
2	4
3	3
4	2
5	1
$\frac{1}{2}$	



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Guided Practice:

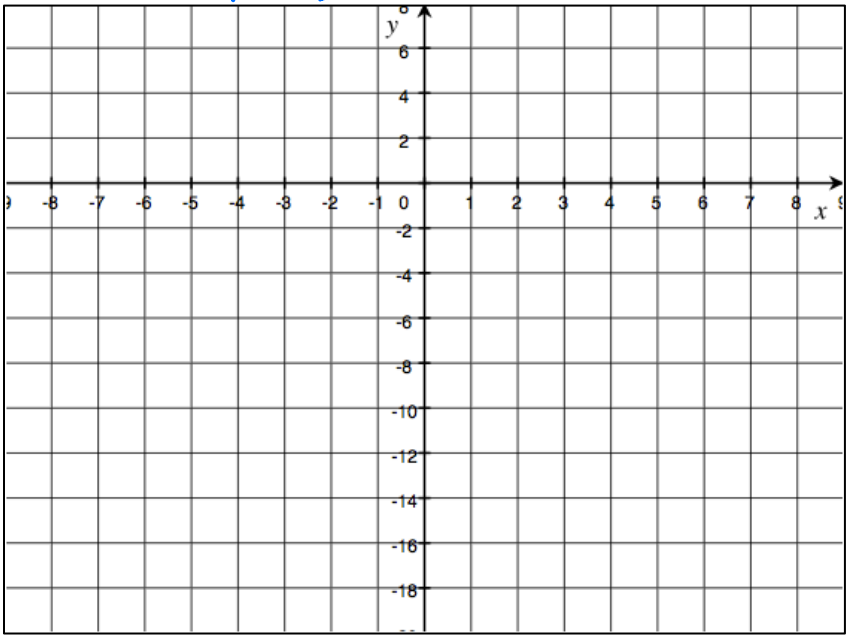
Steps for Finding Solutions to Linear Equations (and Graphing Them)

1. Select a value for x, and find the corresponding y value that will make the equation true.
2. Plot this (x,y) point on the coordinate plane and enter it in the table.
3. Make a determination about the shape of the linear equation.

Find 10 solutions to the linear equation $3x + y = -8$ and plot the points on a coordinate plane.

DESMOS

x	y



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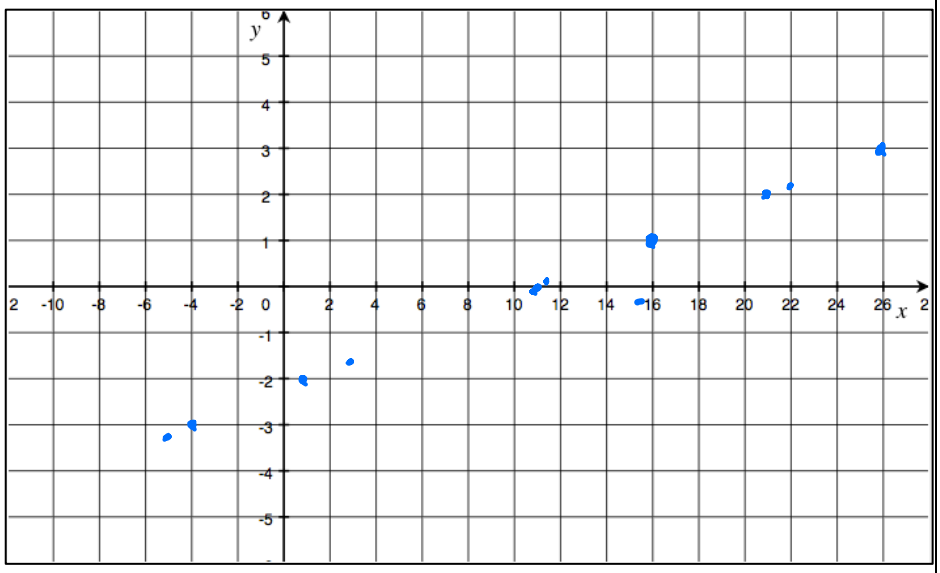
Find at least 10 solutions to the linear equation $x - 5y = 11$ and plot the points on the coordinate plane.

1. Find at least 3 non-integer (fractions) values for *x*.

2. Find at least 3 negative values for *x*.

7 points

x	y
3	-1.6
11.5	.1
16	1
26	3
-5	$\frac{16}{5}$
-4	-3
11	0
1	-2



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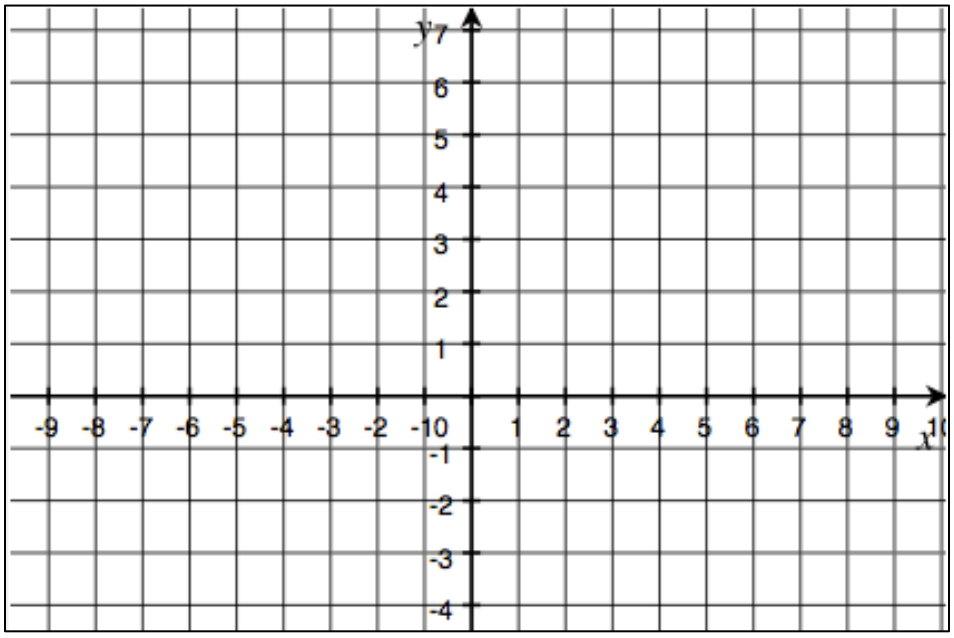
Independent Practice:

Find at least 10 solutions to the linear equation $2x + 4y = 4$ and plot the points on a coordinate plane.

x	y



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Activating Prior Knowledge:

Is $(-1, 2)$ a solution to the linear equation $2x - 2y = 5$?	Is $(4, -5)$ a solution to the linear equation $x + 3y = -11$?

Closure:

Can you write an equation that will graph as something other than a line?

Teacher Notes:

Lesson 13 and 14 from Engage NY Module 4, grade 8.

Maybe do IM Who has the best job?