

HW: 4.1/1-10, 44-48

Warm up:

What is the slope and y-intercept of each function?

	<u>Slope</u>	<u>y-intercept</u>
1) $y = -4x + 6$	-4	6
2) $y = 2x - 7$	2	-7
3) $y = 5x$	5	0
4) $y = -5 - 3x$	-3	-5

Slope-intercept Form

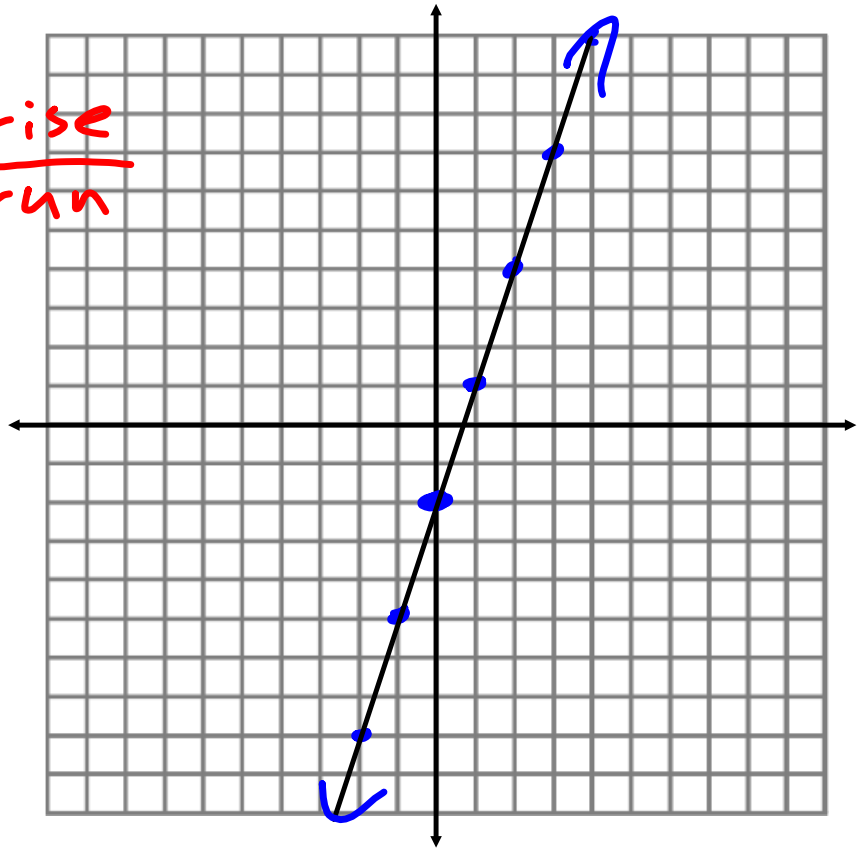
$$y = mx + b$$

m = slope

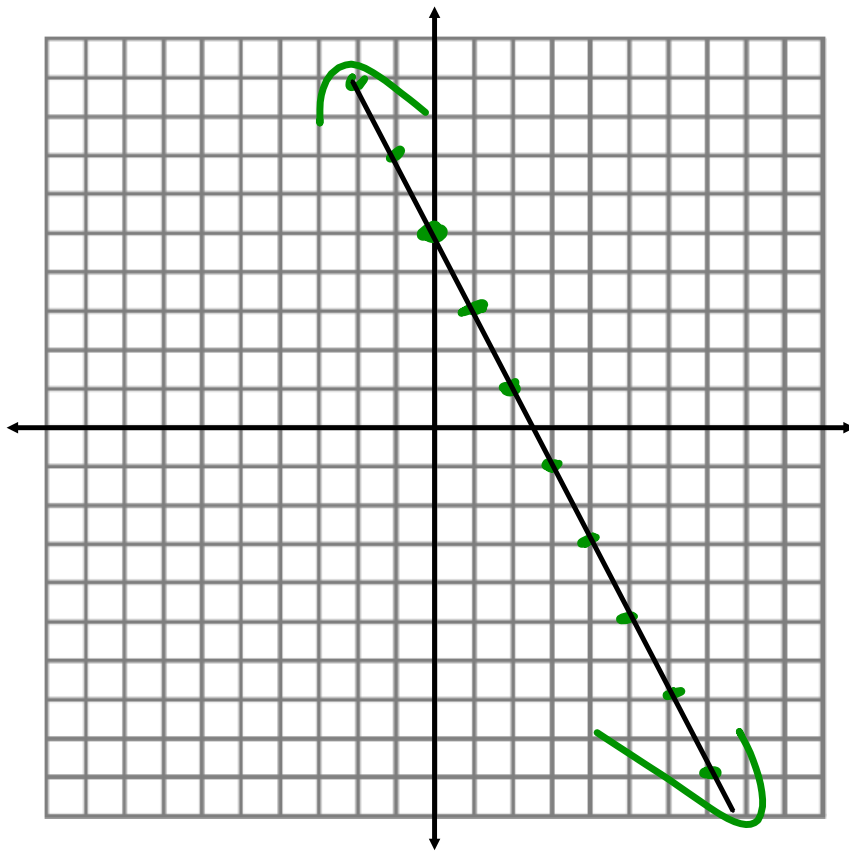
b = y-intercept
(the point at which the line
intersects the y-axis)

$$y = 3x - 2$$

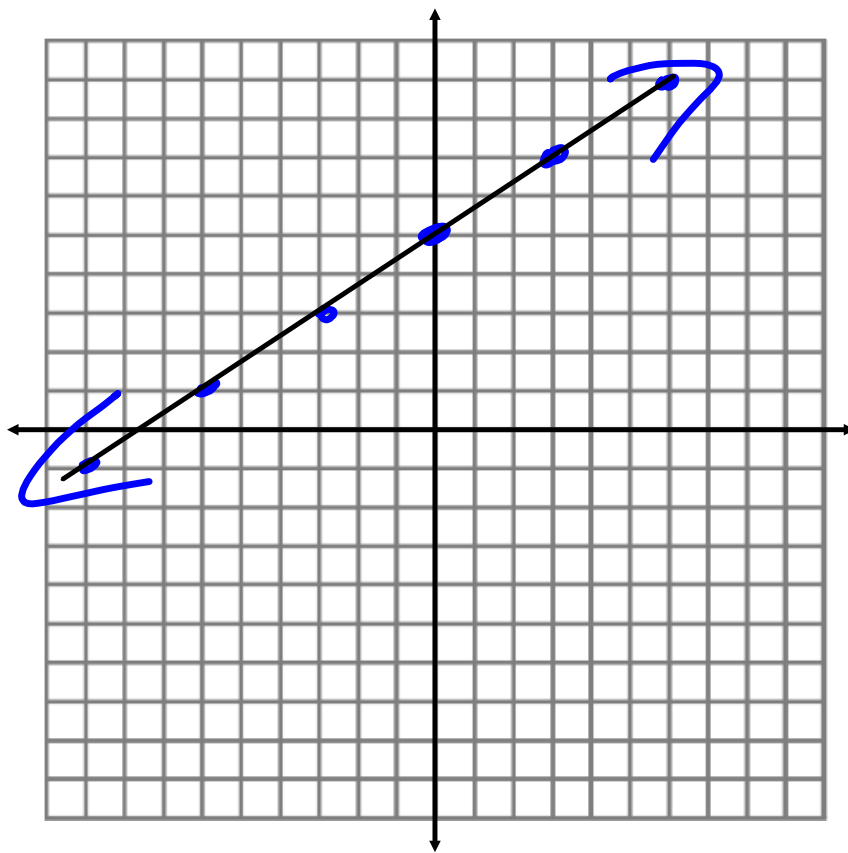
$$3 = \frac{3}{1} \frac{\text{rise}}{\text{run}}$$

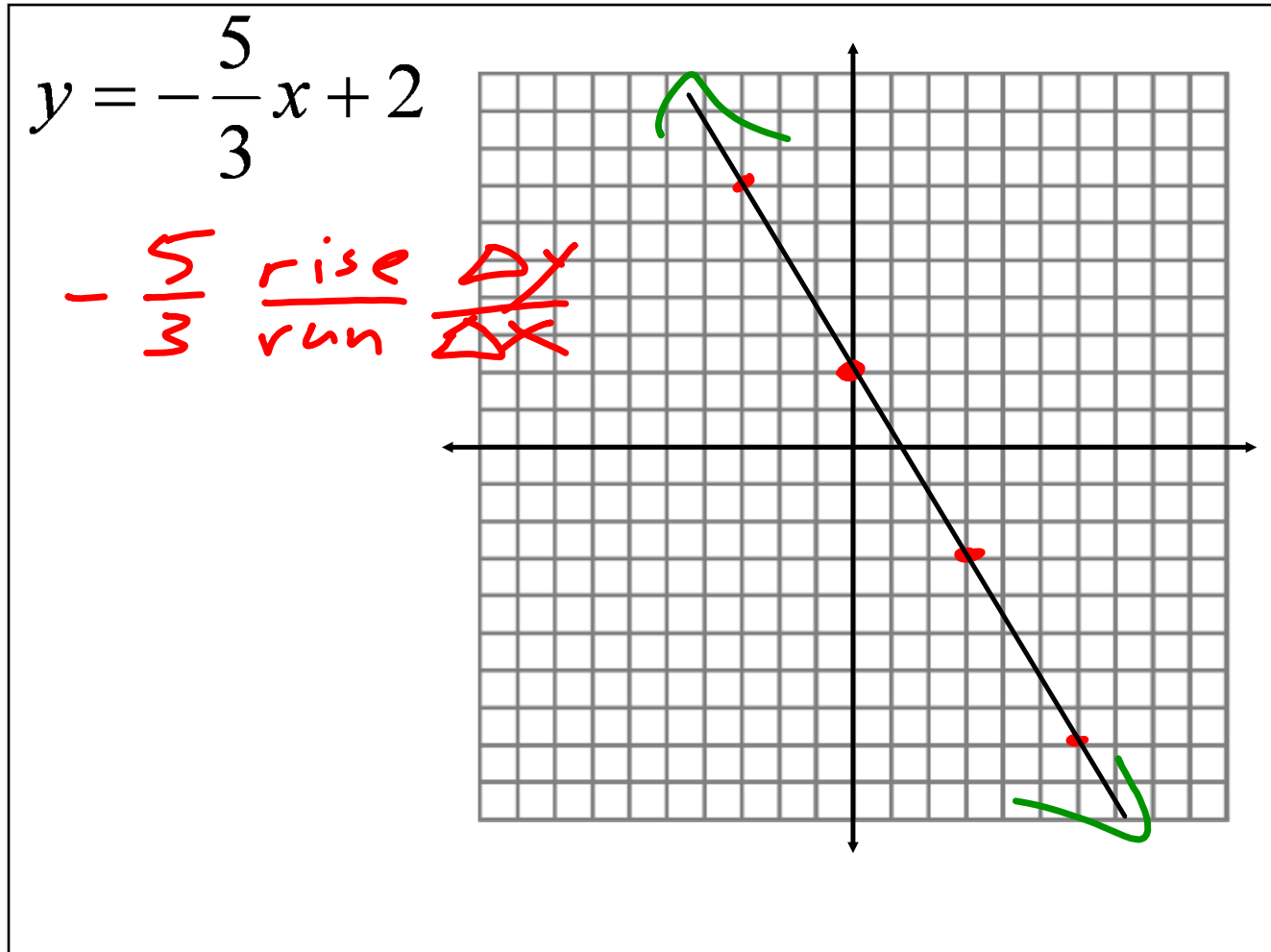


$$y = -2x + 5$$

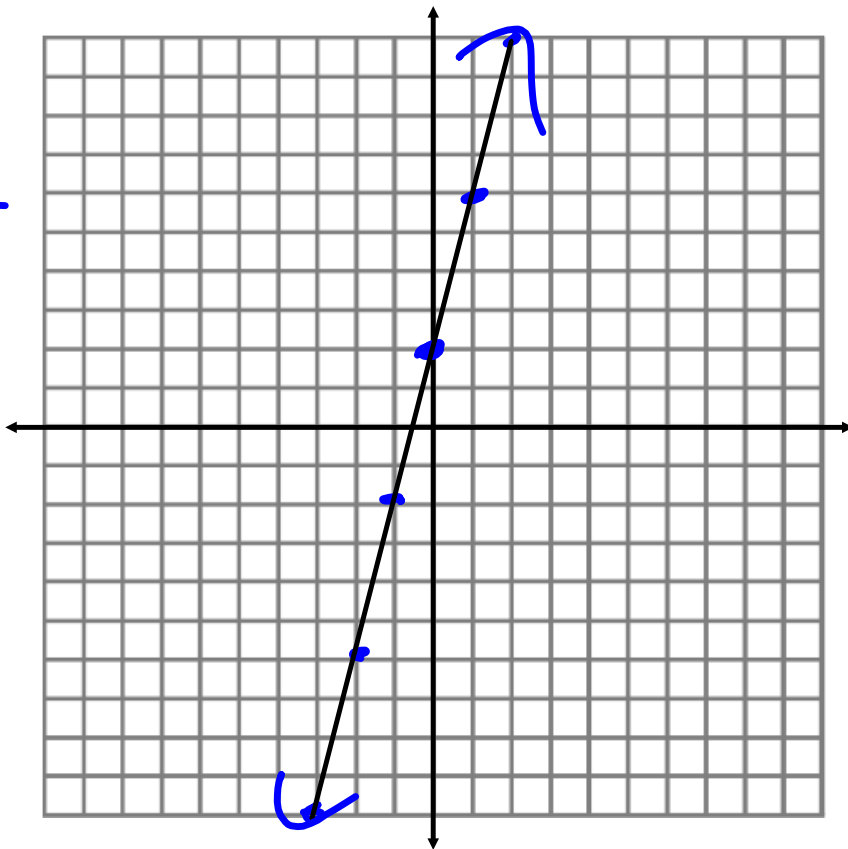


$$y = \frac{2}{3}x + 5$$

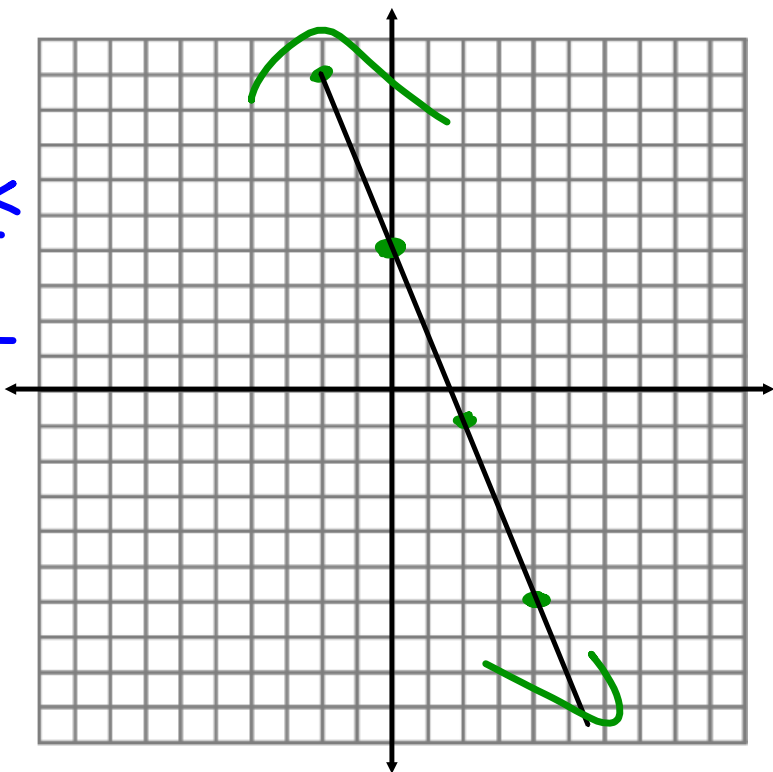




$$\begin{array}{r} 4x = y - 2 \\ + 2 \quad + 2 \\ \hline 4x + 2 = y \end{array}$$



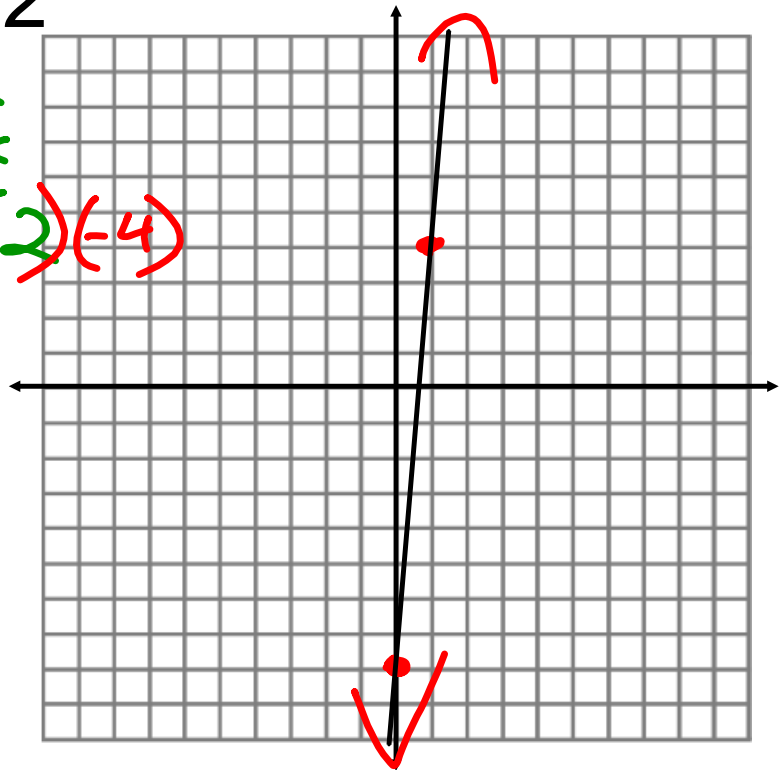
$$\begin{array}{r} 5x + 2y = 8 \\ -5x \quad -5x \\ \hline 2y = 8 - 5x \\ \frac{2y}{2} = \frac{8 - 5x}{2} \\ \hline y = 4 - \frac{5}{2}x \end{array}$$



$$3x - (1/4)y = 2$$

$$\begin{array}{r} 3x - \frac{1}{4}y = 2 \\ -3x \qquad -3x \\ \hline -4\left(-\frac{1}{4}y\right) = (-3x + 2)(-4) \end{array}$$

$$y = 12x - 8$$



1) $y = -\frac{3}{2}x - 3$

5) $y + 5x = 1$

2) $y = 5 + 3x$

6) $y = 7$

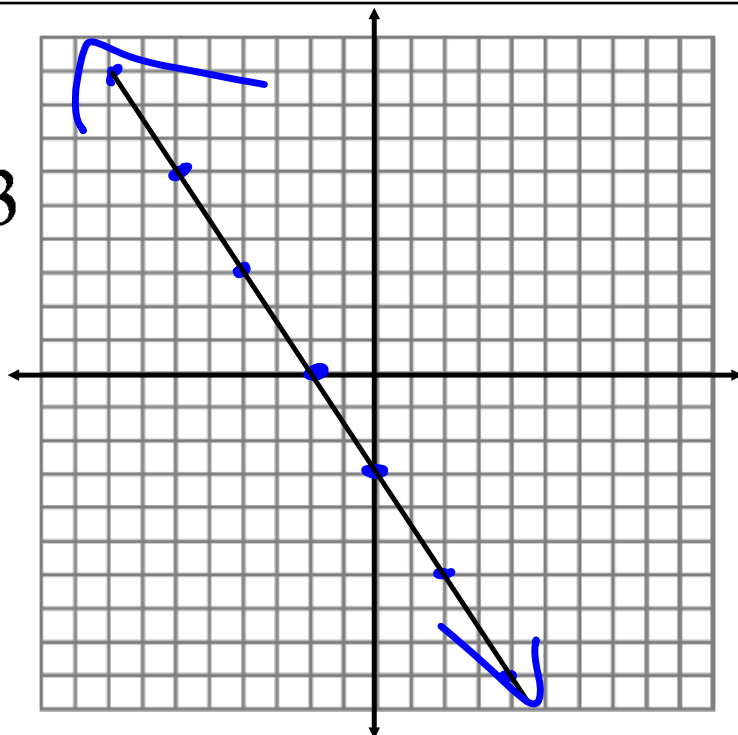
3) $y = -x + 4$

7) $x = -1$

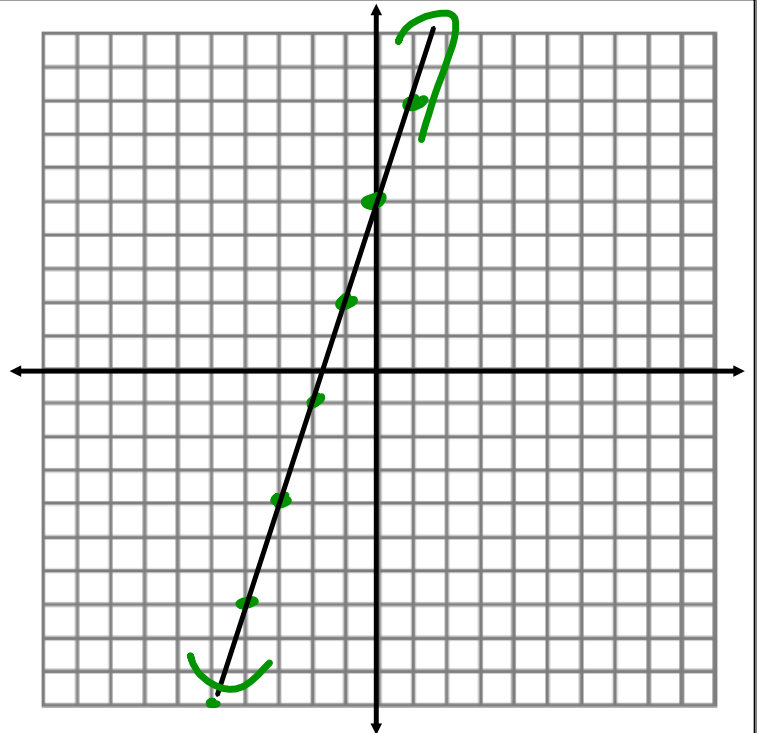
4) $y = \frac{4}{5}x - 1$

8) $6 = y - 4x$

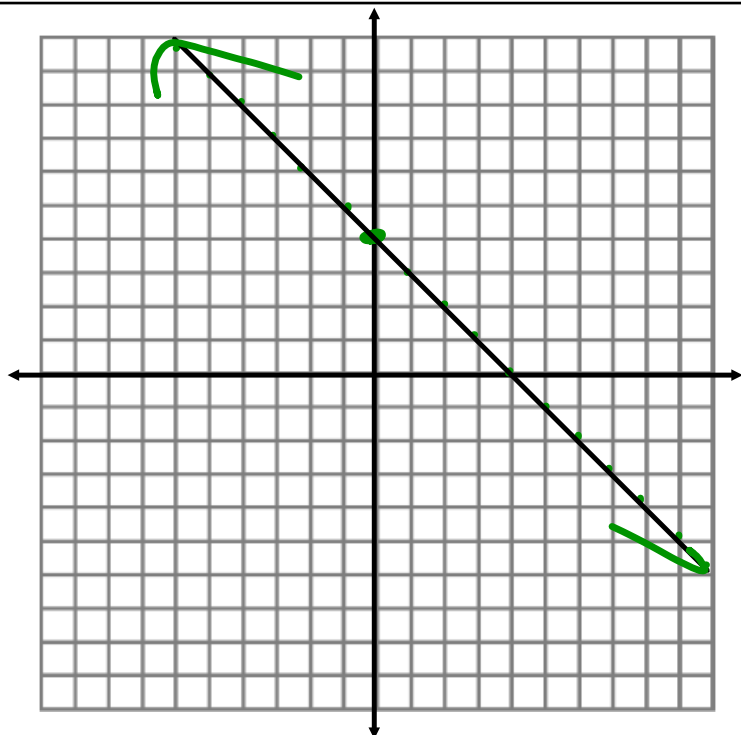
$$1) y = -\frac{3}{2}x - 3$$



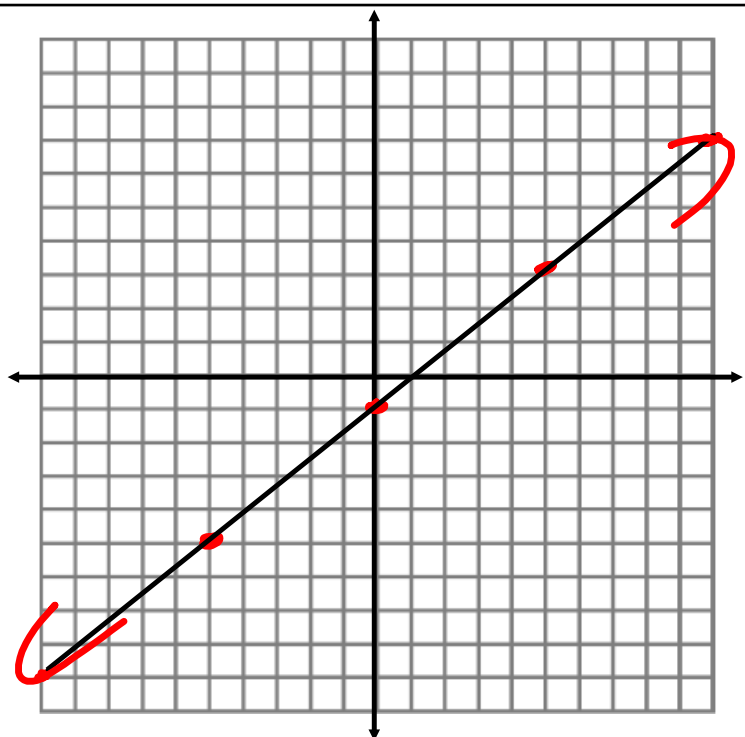
2) $y = 5 + 3x$



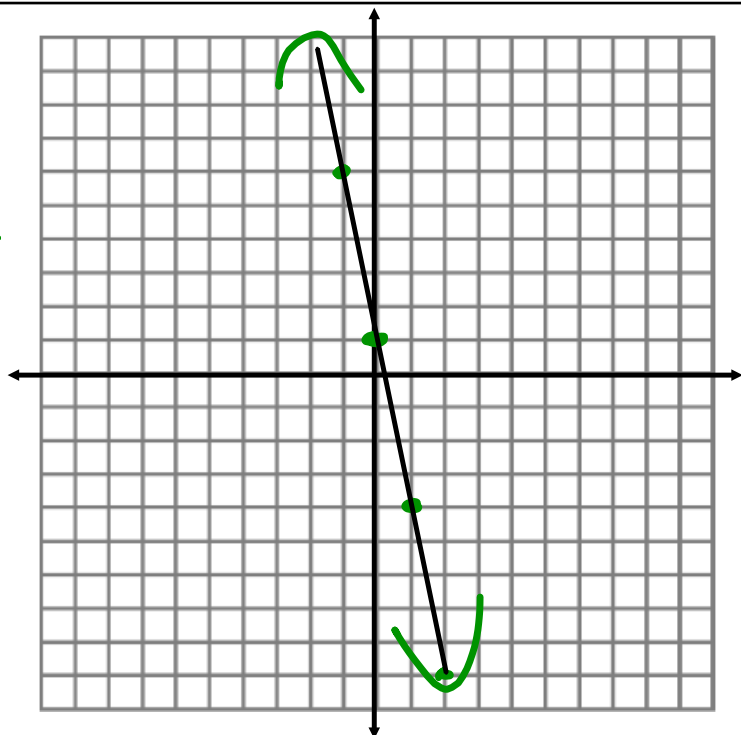
3) $y = -x + 4$



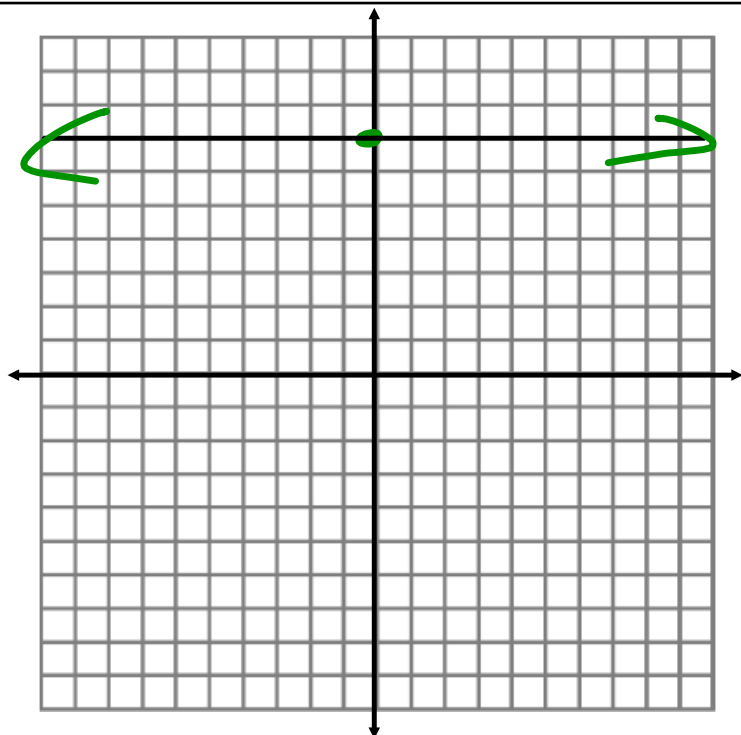
$$4) y = \frac{4}{5}x - 1$$



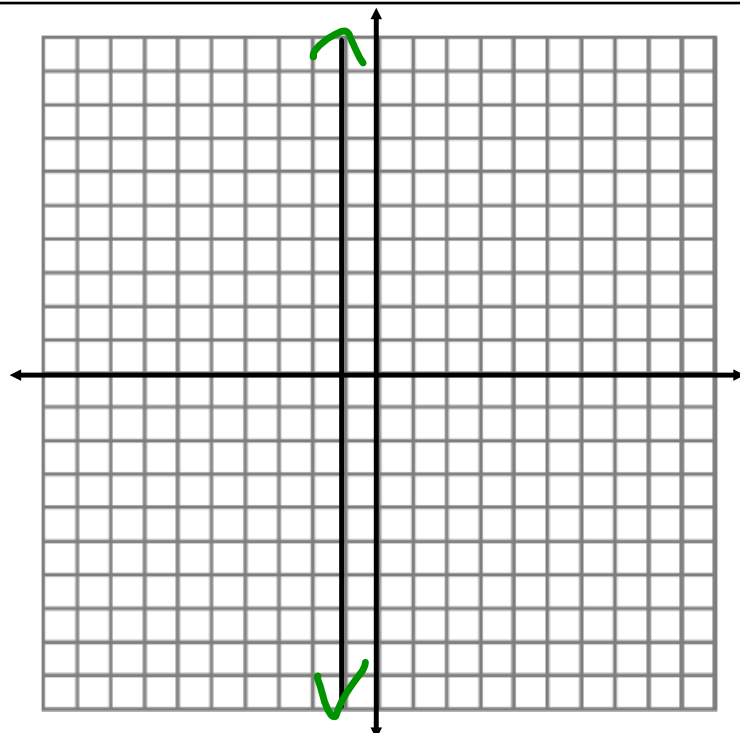
$$\begin{array}{r} 5) \quad y + 5x = 1 \\ \quad -5x - 5x \\ \hline y = -5x + 1 \end{array}$$



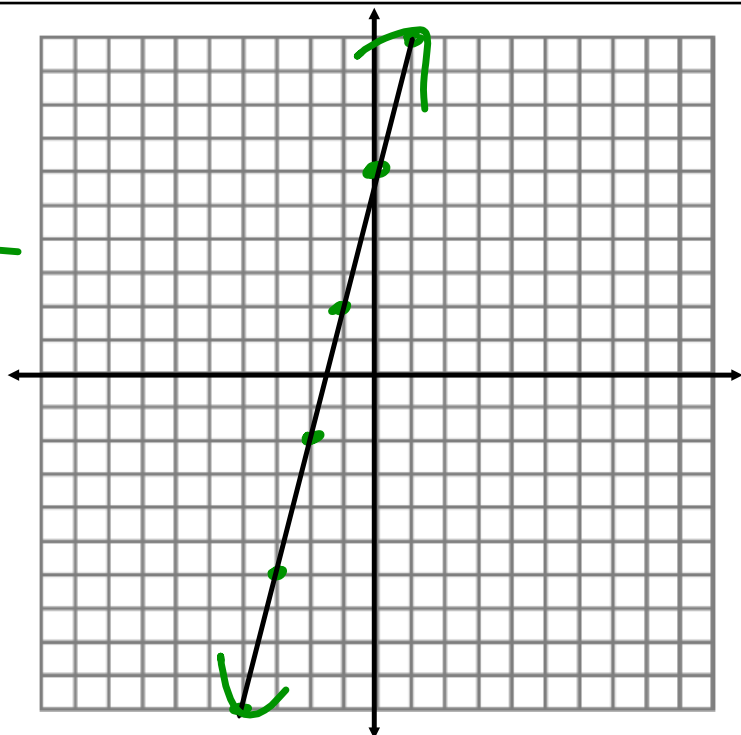
6) $y = 7$



$$7) x = -1$$



$$\begin{array}{r} 8) \quad 6 = y - 4x \\ \quad \quad +4x \quad \quad +4x \\ \hline 4x + 6 = y \end{array}$$



January 11, 2022

