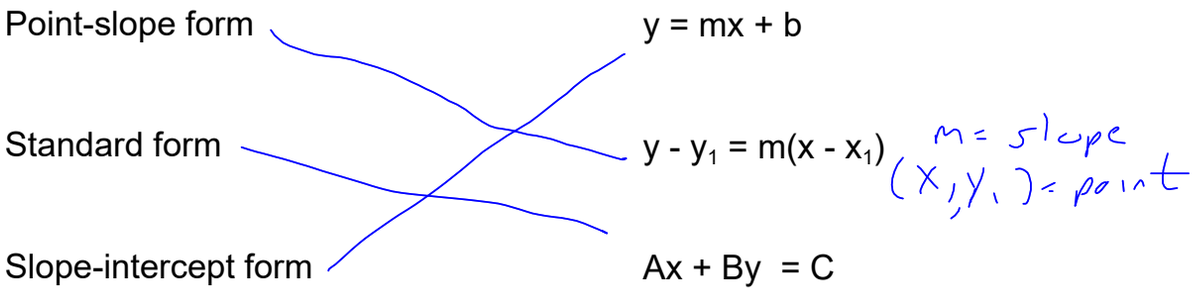
Bell Work:

Copy on your own paper. Match each term with its equation.



Linear Functions and Slope-Intercept Form

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope of the line through each pair of points. To start, substitute (x_1, y_1) and (x_2, y_2) into the slope formula.

1. (1, 6) and (8, −1)

$\frac{6-(-1)}{1-8} = \frac{7}{-7} = -1$

$\frac{-1-6}{8-1} = \frac{-7}{7} = -1$

2

2. (−2, 1) and (8, −3)

$\frac{1-(-3)}{-2-8} = \frac{4}{-10} = \frac{2}{-5}$

$y = mx + b$

Write an equation for each line.

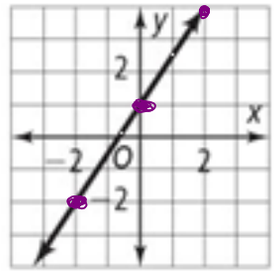
36. $m = \frac{7}{2}$ and the y-intercept is -5

$y = \frac{7}{2}x - 5$

y-int = 1

$m = 3/2$

47.



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

$y = mx + b$

Write each equation in slope-intercept form. Then find the slope and y-intercept of each line. To start, isolate the y-term on one side of the equation.

5 0. $-5y + 2 = -7x$

$-2 \quad -2$

$\frac{-5y}{-5} = \frac{-7x}{-5} - \frac{2}{-5}$

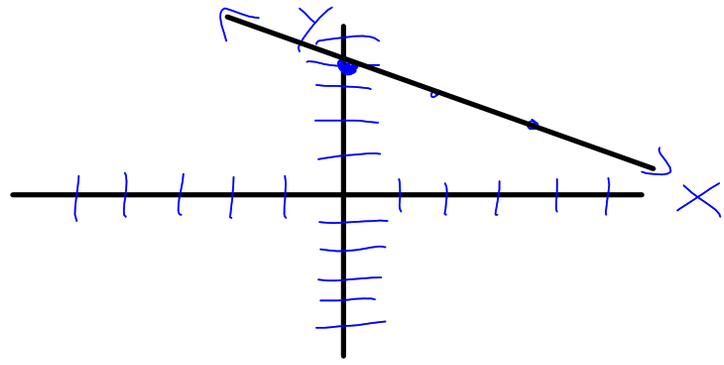
$y = \frac{7}{5}x + \frac{2}{5}$

Graph each equation.

6 12. $y = -\frac{1}{2}x + 4$

$m = -\frac{1}{2}$ down right

y-int = 4 start



$y = mx + b$

Graph each equation. Find the slope and y-intercept.

7. $5y + 4x = 1$

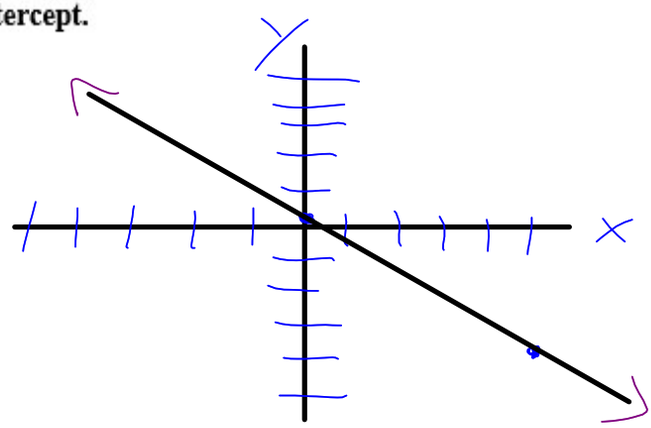
$-4x \quad -4x$

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

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

down 4

right 5



8. $\frac{x}{4} + \frac{y}{8} = \frac{3}{16}$ $\frac{16}{1}$

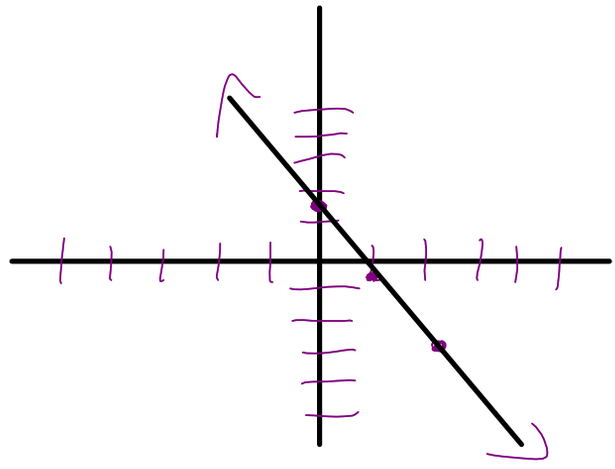
$\frac{16x}{4} + \frac{16y}{8} = \frac{48}{16}$

$4x + 2y = 3$

$-4x \quad -4x$

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

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



$m = \frac{-2}{1}$ $y\text{-int} = \frac{3}{2}$ or 1.5