

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points (9, -11) and (-4, 23)

$$m = -\frac{34}{13}$$

EQ:

$$\begin{aligned} (9, -11) \\ y + 11 &= \frac{-34}{13}(x - 9) \\ (-4, 23) \\ y - 23 &= \frac{-34}{13}(x + 4) \end{aligned}$$

2. Write the equation of the line that passes through this pair of points (7, 3) and (7, -3)

EQ:

$$x = 7$$

3. Identify the Slope and the Point that was used to write this equation:

$$y + 18 = -7(x - 23)$$

Slope:

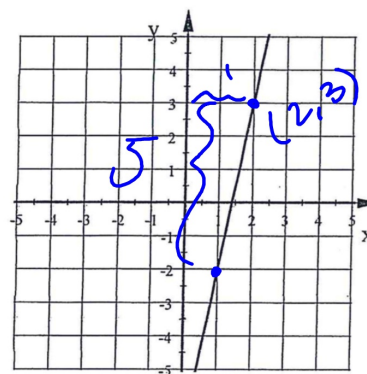
-7

Point:

(23, -18)

4. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ:



$$\begin{aligned} (2, 3) \\ m &= 5 \\ y - 3 &= 5(x - 2) \end{aligned}$$

5. Rewrite this equation into Slope-Intercept Form (don't use any rounded decimals)

$$y + 14 = -5(x - 2)$$

$$y + 14 = -5x + 10$$

$$y = -5x - 4$$

Algebra 1: "Slope-Intercept" Form of a Line

An equation whose graph is a line is a linear equation. The rate of change (also known as the slope) is constant because it does not change. The graph crosses the y-axis at the y int.

Slope-Intercept Form: $y = mx + b$
 m is the slope
 b is the y int.

Tell the slope and y-intercept of the linear equations.

1. $y = 2x - 3$

m = 2 b = -3

2. $3x - y = 5$

$-3x -3x$
 m = 3 b = -5
 $\frac{-y = -3x + 5}{-1} \frac{-1}{-1}$
 $y = 3x - 5$

Write the equation of the line with the given slope and y-intercept.

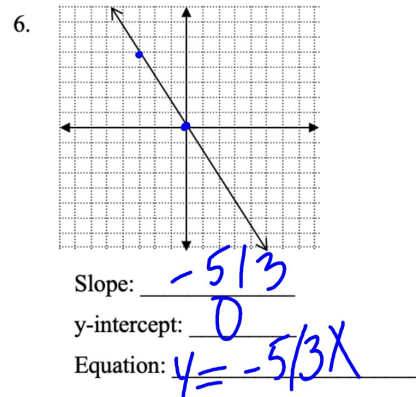
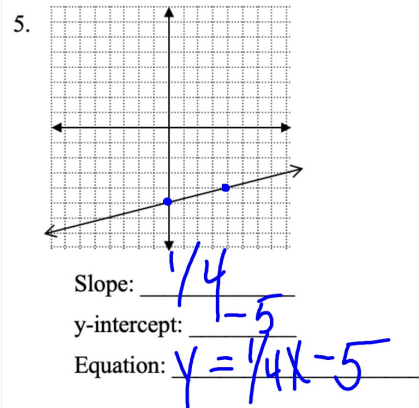
3. Slope $\frac{1}{2}$ and y-intercept 6

EQ: $y = \frac{1}{2}x + 6$

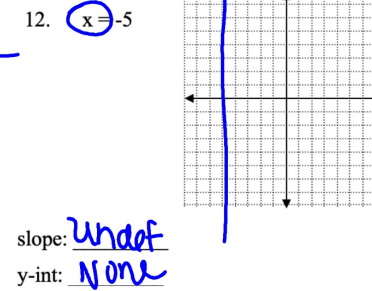
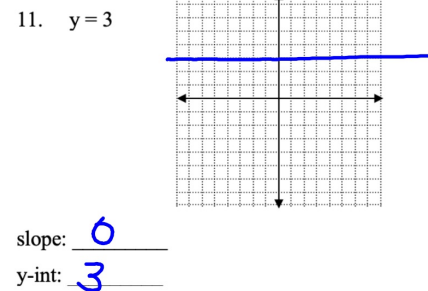
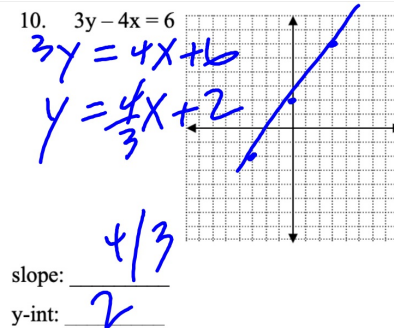
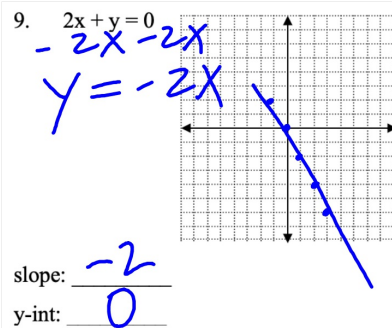
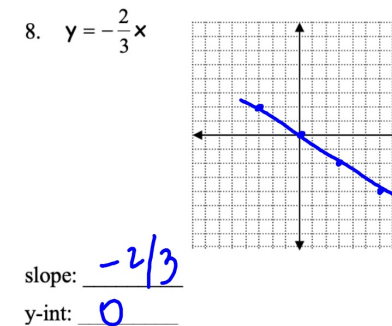
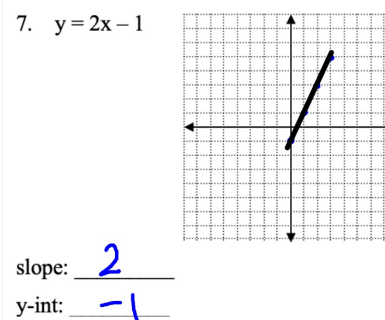
4. Slope 0 and y-intercept -6

EQ: $y = -6$

Write the equation of the line using slope and y-intercept.



Use the slope and y-intercept to graph the equation of the line.



13. Write an equation of a line in slope-intercept form that passes through:

(3, 2) (6, 5)

$$m = 1$$

$$\textcircled{1} y - y_1 = m(x - x_1) \textcircled{2} y = mx + b$$

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

$$y - 2 = x - 3$$

$$y = x - 1$$

$$y = 1x + b$$

$$2 = (3) + b$$

$$b = -1$$

$$y = x - 1$$

STUDY FOR THURSDAY'S QUIZ!

Work on the following: HW #38 - Quiz Review

IXL #15 - S.4 & S.21 due Friday at 4pm!