

Name: _____

MORE WORK GRAPHING LINEAR FUNCTIONS – PRACTICE/HW!

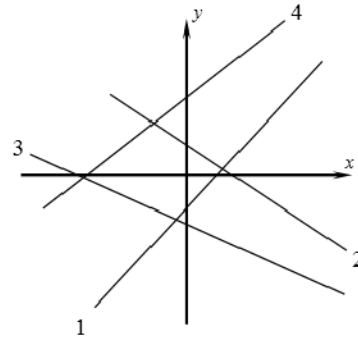
1. Four lines are shown graphed. Place the number of the line next to the equation that most appropriately models it.

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

$y = x - 3$ _____

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

$y = -\frac{1}{2}x - 4$ _____



2. Which of the following is true about the linear function $2y + x = 18$.

- (1) It has a slope of 2 and a y-intercept of 18.
- (2) It has a slope of -2 and a y-intercept of 9.
- (3) It has a slope of $-\frac{1}{2}$ and a y-intercept of 9.
- (4) It has a slope of $\frac{1}{2}$ and a y-intercept of 18.

3. For the line $2y - 6x = 10$, for every unit increase in x which of the following is true?

$$\frac{2y = 6x + 10}{2} \quad \frac{+6x + 6x}{2}$$

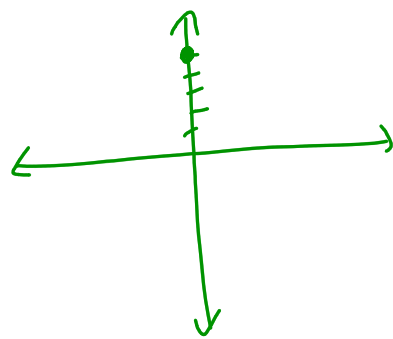
$$y = 3x + 5$$

$$y = 3x + 5$$

↑ slope ↑ intercept

- (1) y decreases by 6
- (2) y increases by 3
- (3) y increases by 2
- (4) y decreases by 10

$$\text{slope} = \frac{\text{rise } y \rightarrow 3}{\text{run } x \rightarrow 1} = 3$$



4. Rewrite each of the following linear equations in equivalent $y = mx + b$ (slope-intercept) form. Identify the slope and the y -intercept and then graph on the grid given. Label each line with its original equation.

(a) $2y - 3x = 10$

$+3x + 3x$

$\frac{2y}{2} = \frac{3x+10}{2}$

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

Slope: $\frac{3}{2}$

y -intercept: 5

(b) $x + 2y = 6$

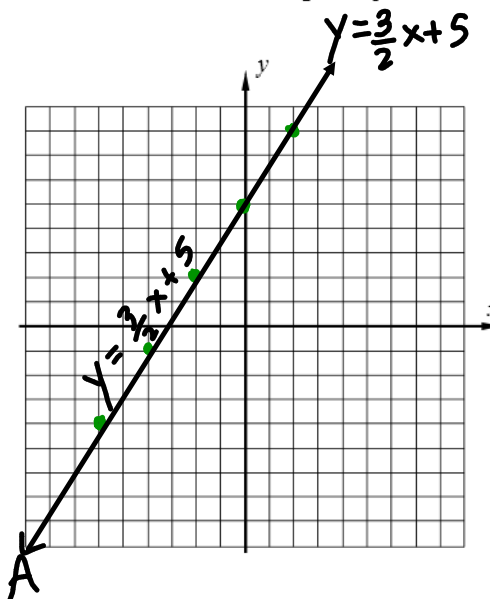
Slope: _____

y -intercept: _____

(c) $3y + 12 = 5x$

Slope: _____

y -intercept: _____



$$\begin{array}{r} 2x + y = 8 \\ \underline{-2x} \quad \underline{-2x} \\ y = -2x + 8 \end{array}$$