

Bell Work

Test Friday

3/25/2015

Solve the following:

$$-8x + 3(x - 6) = \frac{2}{5}(15x - 20)$$

$$\underline{-8x + 3x} - 18 = \frac{2 \cdot 15}{5}x - \frac{2 \cdot 20}{5}$$

$$\begin{array}{r} -5x - 18 = 6x - 8 \\ +5x \qquad \qquad +5x \end{array}$$

$$\begin{array}{r} -18 = 11x - 8 \\ +8 \qquad \qquad +8 \end{array}$$

$$\frac{-10}{11} = \frac{11x}{11}$$

$$\frac{-10}{11} = x$$

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

1. Slope is -3 and a y-intercept of 7

$$m = -3 \quad b = 7$$

$$y = -3x + 7$$

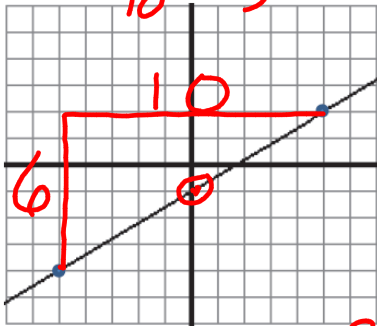
2. Slope is $\frac{1}{4}$ and y-intercept is -5

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

$$m = -\frac{2}{3} \quad b = 2$$

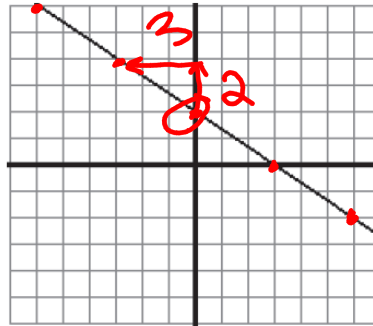
Write an equation based on the graph.

3. $m = \frac{6}{10} = \frac{3}{5} \quad b = -1$



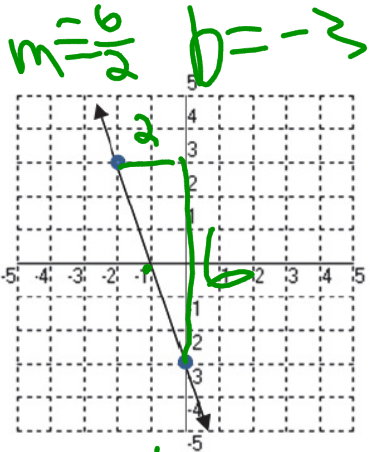
$$y = \frac{3}{5}x - 1$$

4.



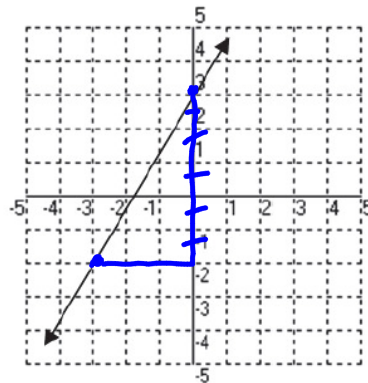
$$y = -\frac{2}{3}x + 2$$

5.



$y = \frac{-6}{2}x - 3$

6.



Slope = $\frac{5}{3}$
 y-int = 3
 $y = \frac{5}{3}x + 3$

Find the slope. Show your work!

7. $y = 4x + 5$

$$\text{Slope} = 4$$

8. $(-3, -8), (-12, -20)$

$$\text{Slope} = \frac{\text{Change in } y}{\text{Change in } x}$$

$$= \frac{-12}{-9} = \frac{4}{3}$$

9. $(17, 11), (5, 0)$

$$\text{Slope} = \frac{\text{Change in } y}{\text{Change in } x}$$

$$= \frac{-11}{-12}$$

$$= \frac{11}{12}$$

Given the table, find m . Show your work!

10.

x	y
-6	12
-5	14
-4	16
-3	18
-2	20

Handwritten annotations: A left arrow points to the x-column, a right arrow points to the y-column, and the number 2 is written to the right of the y-column. A vertical line is drawn to the left of the table, and the number 1 is written to its left.

$$m = \frac{2}{1}$$

11.

x	y
-14	3
-12	6
-10	9
-8	12
-6	15

Handwritten annotations: A right arrow points to the y-column, and the number 3 is written to its right. A vertical line is drawn to the left of the table, and the number 2 is written to its left.

$$m = \frac{3}{2}$$

12.

x	y
-2	3
-1	6
0	9
1	12
2	15

Handwritten annotations: A left arrow points to the x-column, a right arrow points to the y-column, and the number 3 is written to the right of the y-column. A vertical line is drawn to the left of the table, and the number 1 is written to its left. The row containing (0, 9) is circled in blue.

$$m = \frac{3}{1}$$

$$y = \frac{3}{1}x + 9$$

Write a linear equation for the tables shown. $y = mx + b \rightarrow y = \underline{\quad}x + \underline{\quad}$
 SHOW YOUR WORK!

13.

x	y
-6	12
-5	14
-4	16
-3	18
-2	20

$y = 2x + 24$

~~Slope = $\frac{2}{1}$~~

~~$y = \frac{2}{1}x + b$~~

$20 = 2(-2) + b$
 $20 = -4 + b$
 $+4 \quad +4$

 $24 = b$

14.

x	y
-14	3
-12	6
-10	9
-8	12
-6	15

$y = \frac{3}{2}x + 24$

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

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

$15 = \frac{3}{2}(-6) + b$
 $15 = -9 + b$
 $+9 \quad +9$

 $24 = b$

15.

x	y
2	16
5	10
7	6
11	-2
13	-6

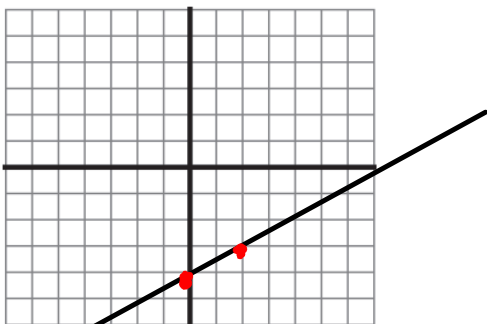
16.

x	y
3	2
6	4
9	6
12	8
15	10

$+3 \left[\right. \rightarrow +2$

Graph the equations in Slope-Intercept form.

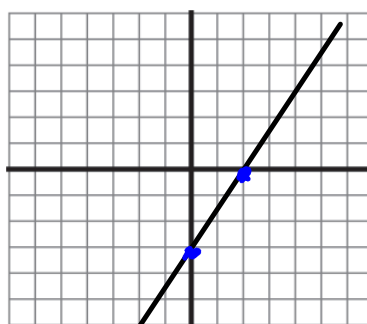
17. $y = \frac{1}{2}x - 4$



$$m = \frac{1}{2}$$

$$b = -4$$

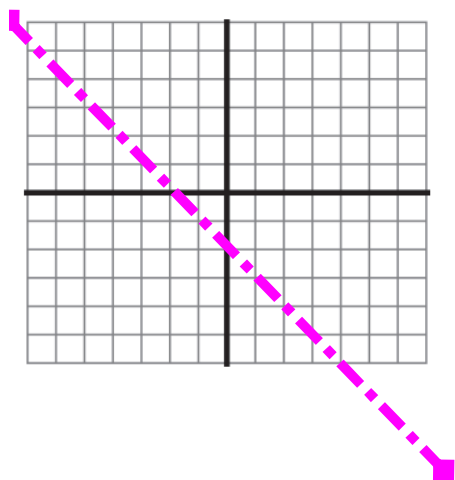
18. $y = \frac{3}{2}x - 3$



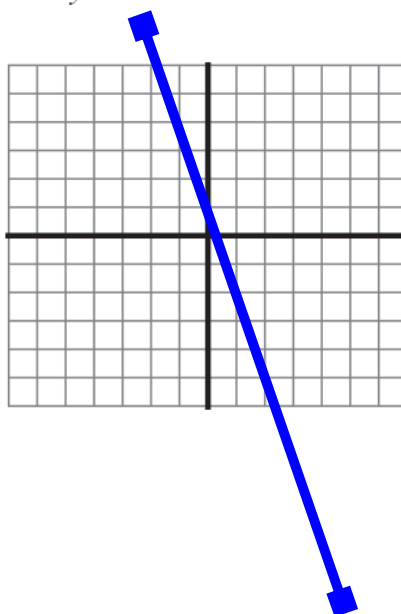
$$m = \frac{3}{2}$$

$$b = -3$$

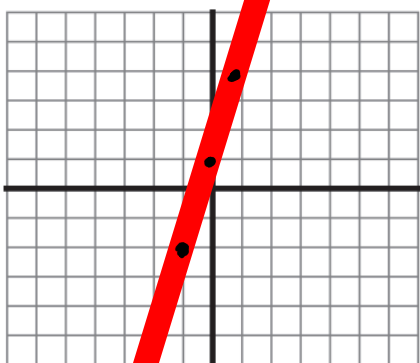
19. $y = -\frac{3}{4}x - 2$



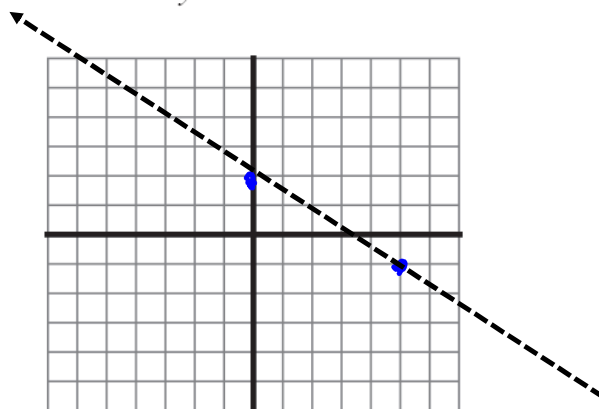
20. $y = -2x + 1$



21. $y = 3x + 1$



22. $10 - 5y = 3x$



$$\begin{array}{r} 10 - 5y = 3x \\ -10 \quad \quad -10 \end{array}$$

$$\begin{array}{r} -5y = 3x - 10 \\ \hline -5 \quad \quad -5 \end{array}$$

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