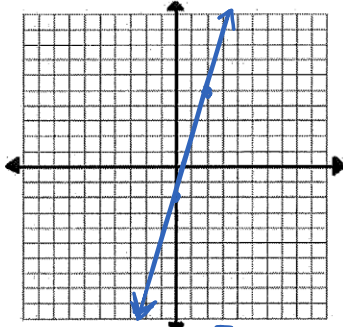


FOM 11 – Graphing Linear Functions Worksheet

Sketch the graph of each line

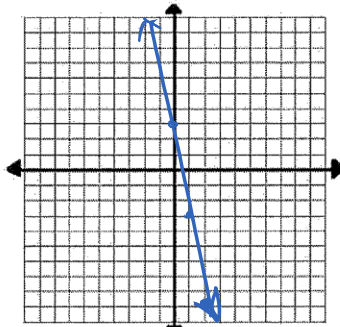
Name: Shonda Rhimes

1. $y = \frac{7}{2}x - 2$



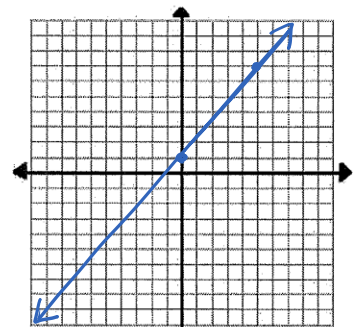
y-int: (0, -2) slope: $\frac{7}{2}$

2. $y = -6x + 3$



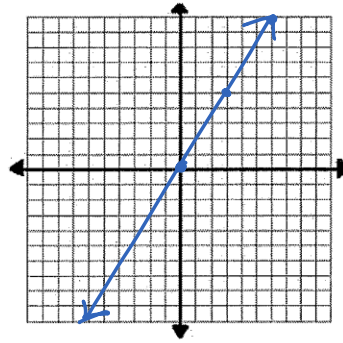
y-int: (0, 3) slope: $-\frac{6}{1}$

3. $y = \frac{6}{5}x + 1$



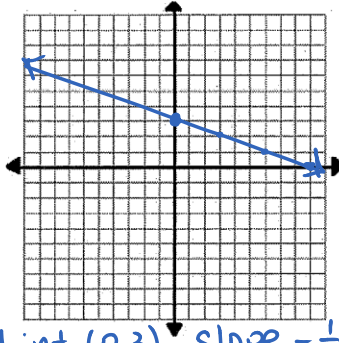
y-int: (0, 1)
slope: $\frac{6}{5}$

4. $y = \frac{5}{3}x$



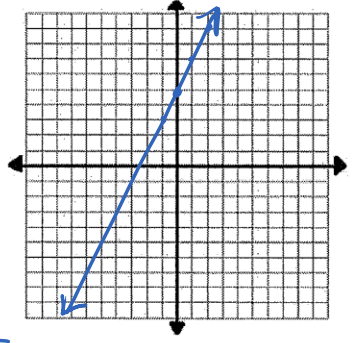
y-int (0, 0)
slope: $\frac{5}{3}$

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



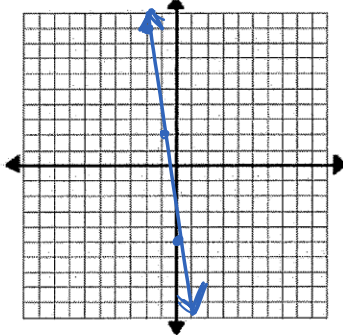
y-int (0, 3) slope $-\frac{1}{3} = -\frac{1}{3}$

6. $y = 2x + 5$



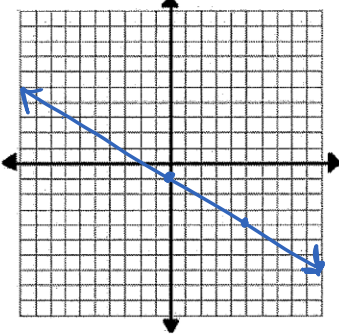
y-int (0, 5)
slope: $\frac{2}{1}$

7. $7x + y = -5$



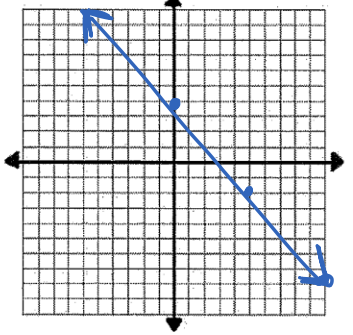
$7x + y = -5$
 $-7x \quad -7x$
 $y = -7x - 5$
y-int (0, -5)
slope $-\frac{7}{1} = -7$

8. $3x + 5y = -5$



$3x + 5y = -5$
 $-3x \quad -3x$
 $5y = -3x - 5$
 $y = -\frac{3}{5}x - 1$
y-int (0, -1) slope: $-\frac{3}{5}$

9. $6x + 5y = 20$

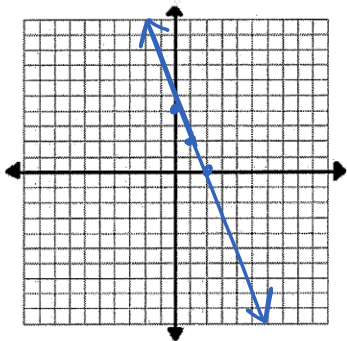


$6x + 5y = 20$
 $-6x \quad -6x$
 $5y = -6x + 20$
 $\frac{5y}{5} = \frac{-6x + 20}{5}$
 $y = -\frac{6}{5}x + 4$
y-int (0, 4)
slope $-\frac{6}{5}$

$$y = -2x + 4$$

y-int (0, 4)
slope $-\frac{2}{1}$

10. $2x + y = 4$

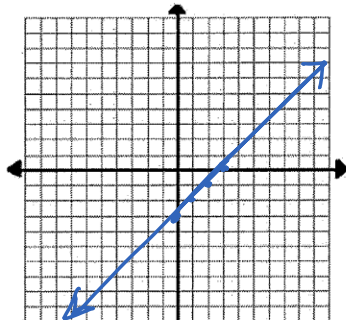


$$x - y = 3$$

$$-y = -x + 3$$

$$y = x - 3$$

11. $x - y = 3$



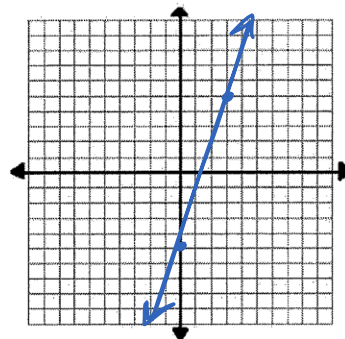
y-int (0, -3) slope = 1

$$-3y = -10x + 15$$

$$y = \frac{10}{3}x - 5$$

y-int (0, -5)
slope $\frac{10}{3}$

12. $10x - 3y = 15$



13. a) Graph the linear function that goes through (-3, -3) and is parallel to $y = \frac{7}{3}x + 3$

b) What is the equation of this line?

$$y = mx + b$$

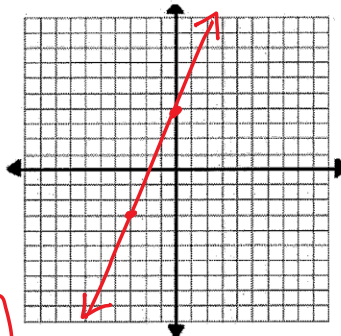
$$y = \frac{7}{3}x + b$$

$$-3 = \frac{7}{3}(-3) + b$$

$$-3 = -7 + b$$

$$4 = b$$

$$y = \frac{7}{3}x + 4$$



14. a) Graph the linear function that goes through (-4, 4) and is perpendicular to $y = \frac{2}{5}x + 5$

b) What is the equation of this line?

$$y = mx + b$$

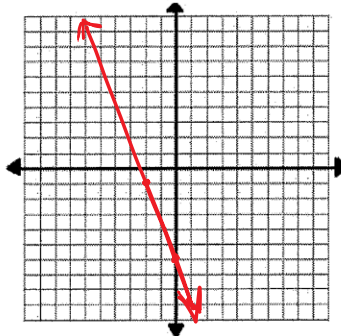
$$y = -\frac{5}{2}x + b$$

$$4 = -\frac{5}{2}(-4) + b$$

$$4 = 10 + b$$

$$-6 = b$$

$$y = -\frac{5}{2}x - 6$$



15. A company makes Rollerblades and Skateboards. On Saturday there was only one employee working which restricts the numbers of items that can be made: In one day one employee can manufacture only 8 items. Write a linear equation to model this information and sketch a graph.

Let
 x = number of Rollerblades
 y = number of Skateboards

$$x + y = 8$$

$$y = -x + 8$$

