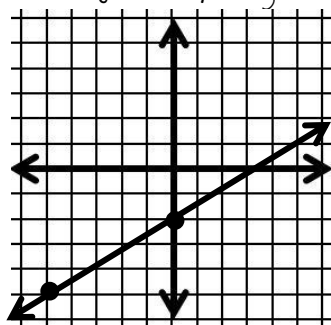


SLOPE- INTERCEPT FORM

Identify the slope and the y-intercept in each of the graphs below.

Compare it to the equation of the line. What do you notice?

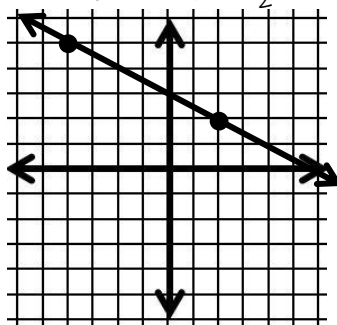
- ① The graph below represents the linear equation $y = \frac{3}{5}x - 2$.



Slope: _____

y-intercept: _____

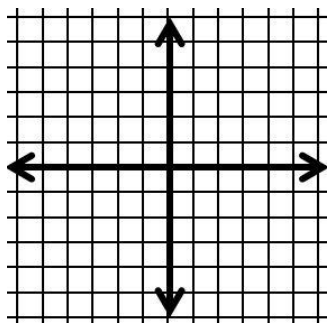
- ② The graph below represents the linear equation $y = -\frac{1}{2}x + 3$.



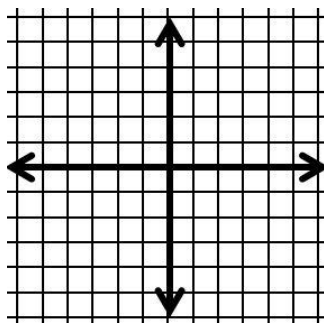
Slope: _____

y-intercept: _____

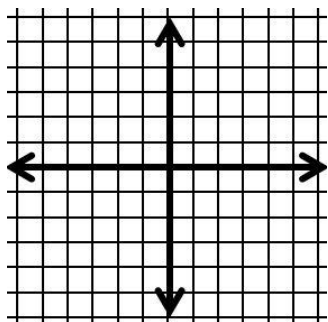
- ③ Graph $y = \frac{1}{3}x - 4$.



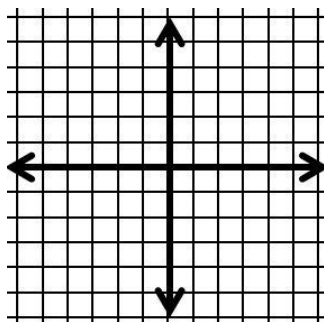
- ④ Graph $y = -5x + 3$.



- ⑤ Graph $y = x + 2$



- ⑥ Graph $y = 3x$



Graph Using Slope-Intercept Form

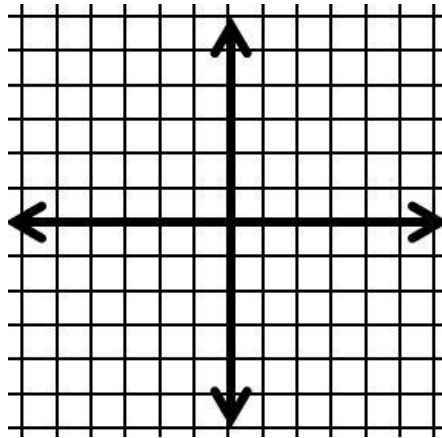
Graphing linear equations using SLOPE-INTERCEPT FORM

Step 1:

Step 2:

Step 3:

EXAMPLE: Graph $y = \frac{2}{3}x - 1$.

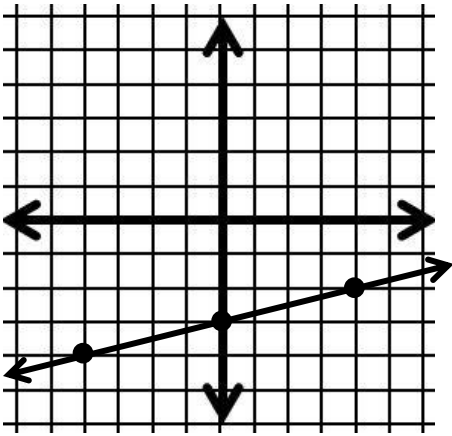


SLOPE-INTERCEPT FORM

$$y = \underbrace{mx}_{\text{Slope}} + \underbrace{b}_{\text{y-intercept}}$$

Slope and Intercepts

1

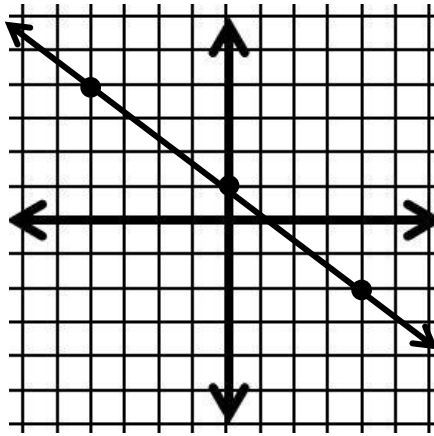


Slope: _____

y-intercept: _____

Slope- Intercept Form:

2

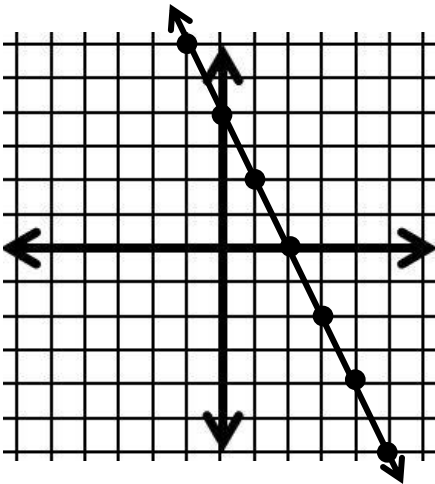


Slope: _____

y-intercept: _____

Slope- Intercept Form:

3

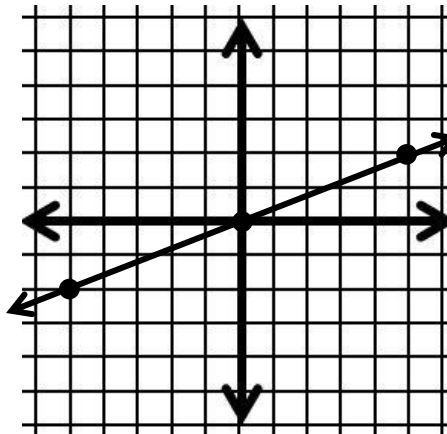


Slope: _____

y-intercept: _____

Slope- Intercept Form:

4



Slope: _____

y-intercept: _____

Slope- Intercept Form:

Writing Equations in Slope-Intercept Form

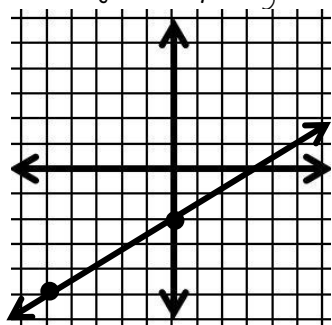
Answer Key!

SLOPE-
INTERCEPT
FORM

Identify the slope and the y-intercept in each of the graphs below.

Compare it to the equation of the line. What do you notice?

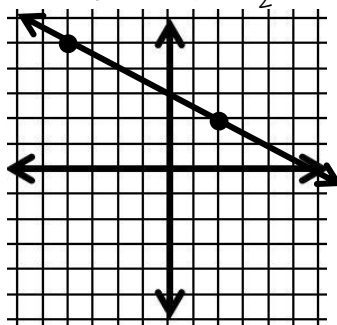
- ① The graph below represents the linear equation $y = \frac{3}{5}x - 2$.



Slope: $\frac{\text{rise}}{\text{run}} = \frac{3}{5}$

y-intercept: -2

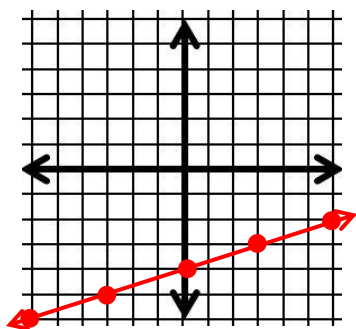
- ② The graph below represents the linear equation $y = -\frac{1}{2}x + 3$.



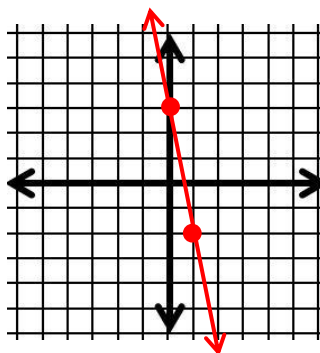
Slope: $\frac{\text{rise}}{\text{run}} = \frac{-3}{6} = -\frac{1}{2}$

y-intercept: 3

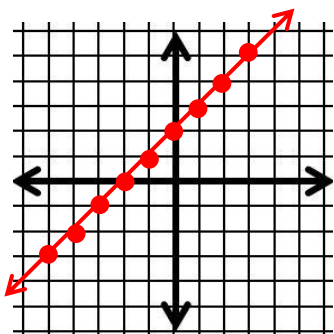
- ③ Graph $y = \frac{1}{3}x - 4$.



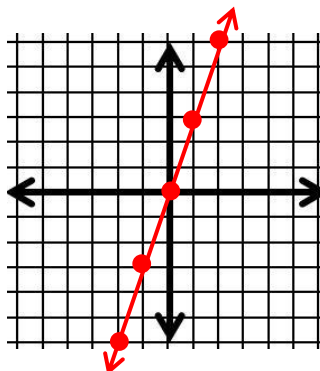
- ④ Graph $y = -5x + 3$.



- ⑤ Graph $y = \frac{1}{4}x + 2$



- ⑥ Graph $y = 3x + 0$



Graph Using Slope-Intercept Form

Graphing linear equations using SLOPE-INTERCEPT FORM

Step 1: Identify the slope and the y-intercept.

Step 2: Plot the y-intercept.

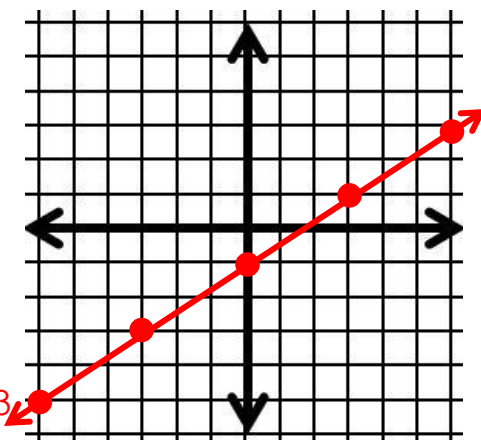
Step 3: Use the slope to plot additional points (beginning from the y-intercept).

Example: Graph $y = \frac{2}{3}x - 1$.

Step 1: $m = \frac{2}{3}$
 $b = -1$

Step 2: Plot a point on the y-axis at -1.

Step 3: From the y-int (-1) go up 2 and to the right 3.



SLOPE-INTERCEPT FORM

$$y = \underbrace{mx} + \underbrace{b}$$

Slope

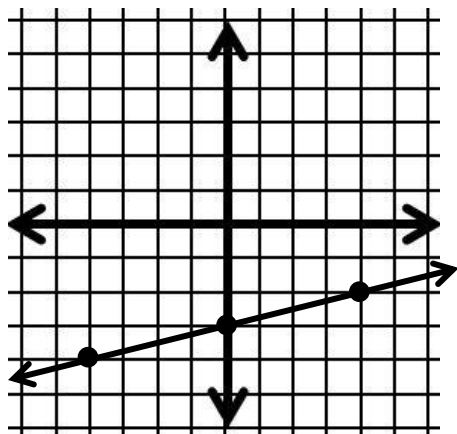
$\frac{\text{rise}}{\text{run}}$

y-intercept

Where the line crosses the y-axis

Slope and Intercepts

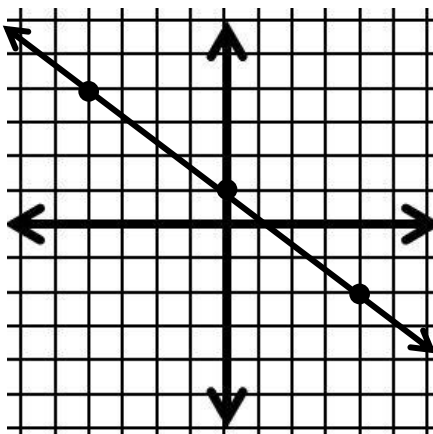
①

Slope: $\frac{1}{4}$ y-intercept: -3

Slope- Intercept Form:

$$y = \frac{1}{4}x - 3$$

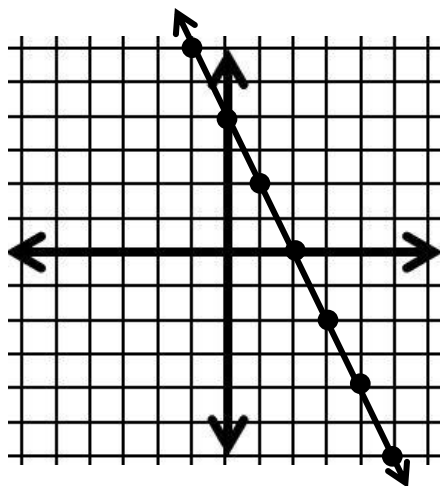
②

Slope: $-\frac{3}{4}$ y-intercept: 1

Slope- Intercept Form:

$$y = -\frac{3}{4}x + 1$$

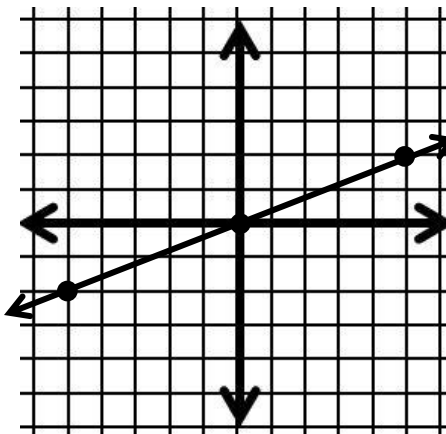
③

Slope: -2 y-intercept: 4

Slope- Intercept Form:

$$y = -2x + 4$$

④

Slope: $\frac{2}{5}$ y-intercept: 0

Slope- Intercept Form:

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

Writing Equations in Slope-Intercept Form

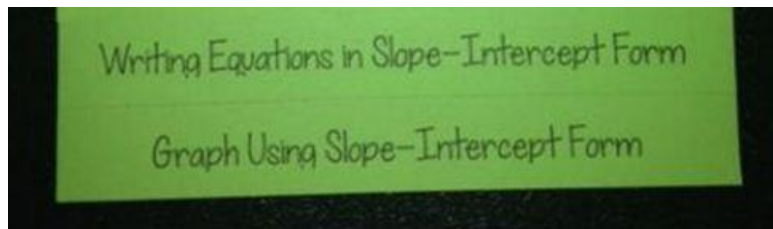
Directions

Step 1: Print pages 1&2, and 3&4 front to back. I use the option on my printer double sided and to flip along the short edge. If you print single-sided first, then flip manually.

(The information should be facing in opposite directions)

Step 2: Cut along the dotted line to cut off the extra piece on the right side of the paper. If you photocopied this correctly, there should not be any problems in this area on the back side either.

Step 3: Line up the two pieces as shown:



Step 4: Fold over the top portion and secure with a few staples. The final product should look like this:

