

## Notes - Slope-Intercept Form

### Slope-Intercept Form

Linear equation used to represent a straight line on a graph

$$y = mx + b$$

### Writing Equations in Slope-Intercept Form

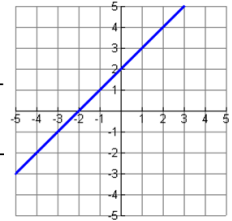
$$y = mx + b$$

Slope-Intercept Form:

m represents \_\_\_\_\_

b represents \_\_\_\_\_

(where the graph crosses the y-axis)



### Writing Equations in Slope-Intercept Form

Find the slope and the y-intercept of the following.

$$y = -3x + 5 \qquad y = \frac{1}{2}x - 10$$

m =

m =

b =

b =

### Writing Equations in Slope-Intercept Form

Write the equation of a line whose slope is -2 and the y-intercept is -5.

$$y = mx + b$$

### Writing Equations in Slope-Intercept Form

Write the equation of a line whose slope is  $\frac{3}{4}$  and the y-intercept is 0.

$$y = mx + b$$

### Writing Equations in Slope-Intercept Form

Write the equation of a line whose slope is -1 and y-intercept is -3.

$$y = mx + b$$

## Notes - Slope-Intercept Form

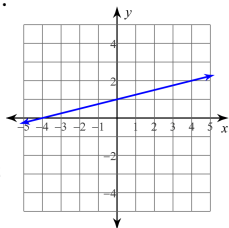
### Writing Equations in Slope-Intercept Form

Write the slope-intercept form of the equations graphed below.

$m =$

$b =$

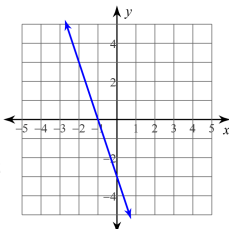
Slope-Intercept Form:



$m =$

$b =$

Slope-Intercept Form:



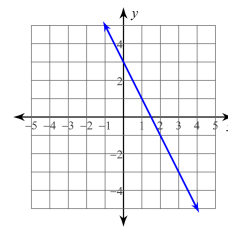
### Writing Equations in Slope-Intercept Form

Write the slope-intercept form of the equations graphed below.

$m =$

$b =$

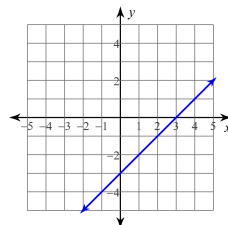
Slope-Intercept Form:



$m =$

$b =$

Slope-Intercept Form:

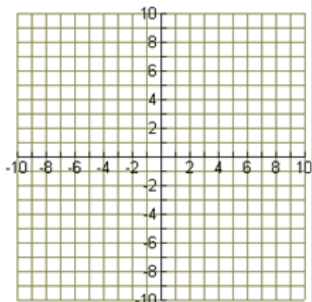


### Graphing Equations in Slope-Intercept Form

- Steps:**
1. Plot the y-intercept.
  2. Use the slope (rise/run) to find the second point.
  3. Draw the line with arrows.

Graph the equation using the slope and y-intercept.

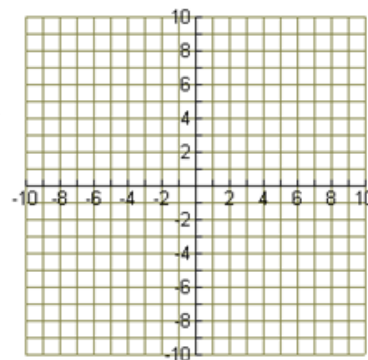
$$y = 3x - 1$$



### Graphing Equations in Slope-Intercept Form

Graph the equation below using the slope and y-intercept.

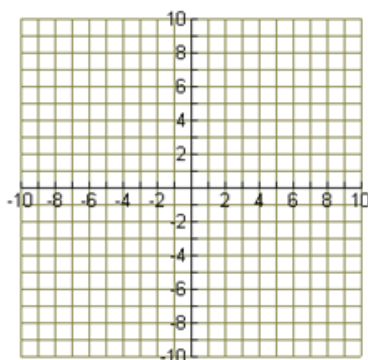
$$y = -\frac{1}{2}x + 3$$



### Graphing Equations in Slope-Intercept Form

Graph the equation below using the slope and y-intercept.

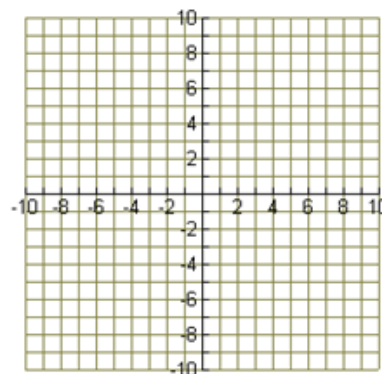
$$y = \frac{3}{2}x - 2$$



### Graphing Equations in Slope-Intercept Form

Graph the equation below using the slope and y-intercept.

$$y = 2x$$



## Attachments

---

mental math division.ppt