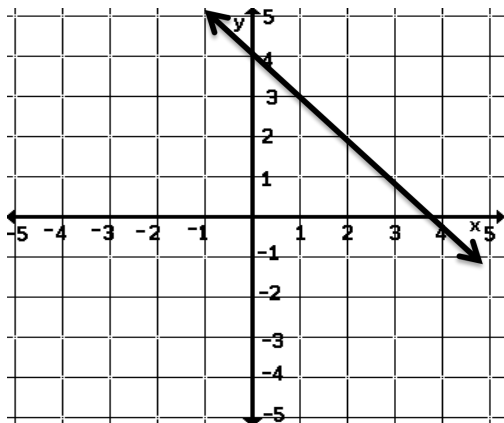


V. Write an Equation in Slope-Intercept Form Using the Graph

A.



- Find the  $y$ -intercept.

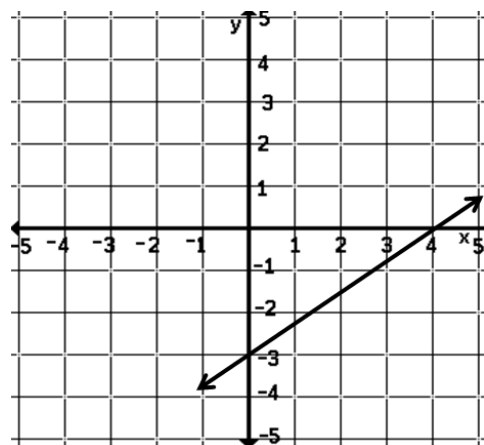
$y$ -intercept ( $b$ ) =

- Calculate the slope using  $\frac{\text{rise}}{\text{run}}$ .

slope ( $m$ ) =  $\frac{\text{rise}}{\text{run}}$  =

- Use the slope-intercept form to write the equation:  $y = mx + b$ .

B.



If there are NO points on the line:

- Where does the line cross the  $y$ -axis?  
This is the  $y$ -intercept.

$y$ -intercept ( $b$ ) =

- Where does the line intersect the corner of a square?

Use  $\frac{\text{rise}}{\text{run}}$  to calculate the slope.

Slope ( $m$ ) =

- Use the slope-intercept form to write the equation:  $y = mx + b$ .

## VI. Horizontal and Vertical Lines

HOY

\_\_\_ horizontal line  $\leftrightarrow$

\_\_\_ slope

\_\_\_ = #

VUX

\_\_\_ vertical line  $\updownarrow$

\_\_\_ undefined slope

\_\_\_ = #

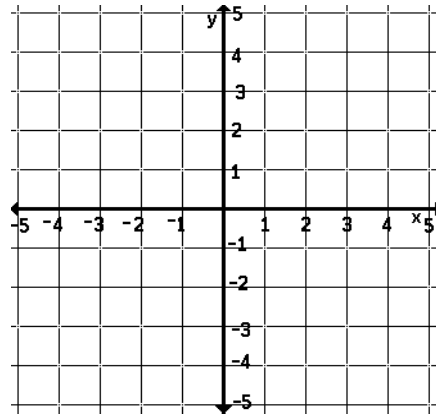
## VII. Graph the Lines

$$y = -4$$

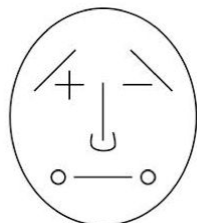
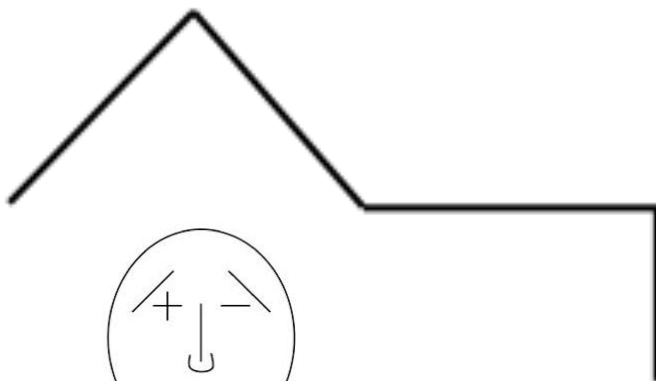
HOY or VUX?

$$x = 2$$

HOY or VUX?



## Slope Dude's Journey



MR. SLOPE GUY

### VIII. Convert Point-Slope to Slope-Intercept Form

$$y - y_1 = m(x - x_1)$$

- A. Write an equation in slope-intercept form for the line that contains the point (5, 4) and has a slope of 2.
- B. Write an equation in slope-intercept form for the line that contains the point (1, -6) and has a slope of -3.
- C. Write an equation in slope-intercept form for the line that contains the point (-4, 4) and has a slope of  $\frac{1}{2}$ .

- D.** Write an equation in slope-intercept form for the line that contains the points  $(2, 4)$  and  $(-2, 6)$ .

Find the Slope:                      Point-Slope  $\Rightarrow$  Slope-Intercept Form:

- E.** Write an equation in slope-intercept form for the line that contains the points  $(-3, -2)$  and  $(-4, 1)$ .

Find the Slope:                      Point-Slope  $\Rightarrow$  Slope-Intercept Form:

- F.** Write an equation in slope-intercept form for the line that contains the points  $(2, -4)$  and  $(0, 6)$ .

Find the Slope:                      Point-Slope  $\Rightarrow$  Slope-Intercept Form: