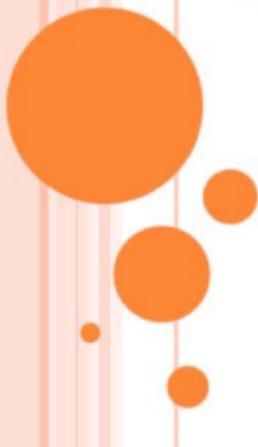


# QUICK GRAPHS USING SLOPE- INTERCEPT FORM

Chapter 4  
Section 6



## SLOPE-INTERCEPT FORM

- $y=mx+b$ 
  - Where  $m$  is the slope and  $b$  is the y-intercept and  $(x,y)$  is a point

Examples:

$$1. \ y = 3x + 4$$

Slope: 3

Y-Int: (0,4)

$$2. \ y = -x + 2$$

Slope: -1

Y-Int: (0,2)

$$3. \ y = 5x - 3$$

Slope: 5

Y-Int: (0,-3)

$$4. \ y = 6$$

Slope: 0

Y-int: (0,6)



## CLASSWORK

- Blue book: Pg 133 # 1-12



## GRAPHING USING SLOPE AND Y-INTERCEPT

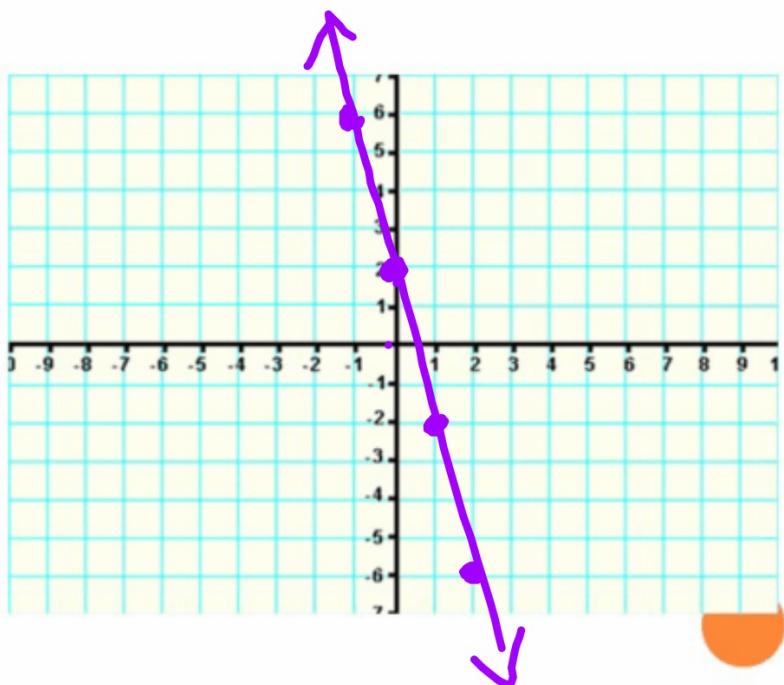
- Steps to Graph using Slope and y-intercept
  - Write the equation in slope intercept form ( $y=mx+b$ )
  - Find the slope and y-intercept
  - Plot the point of the y-intercept  $(0,y)$
  - Graph the slope starting at the point from the y-intercept
  - Draw a line through the two points



EXAMPLE:

1.  $y = -4x + 2$

$m = -4 = \frac{-4}{1}$   
 $(0, 2)$

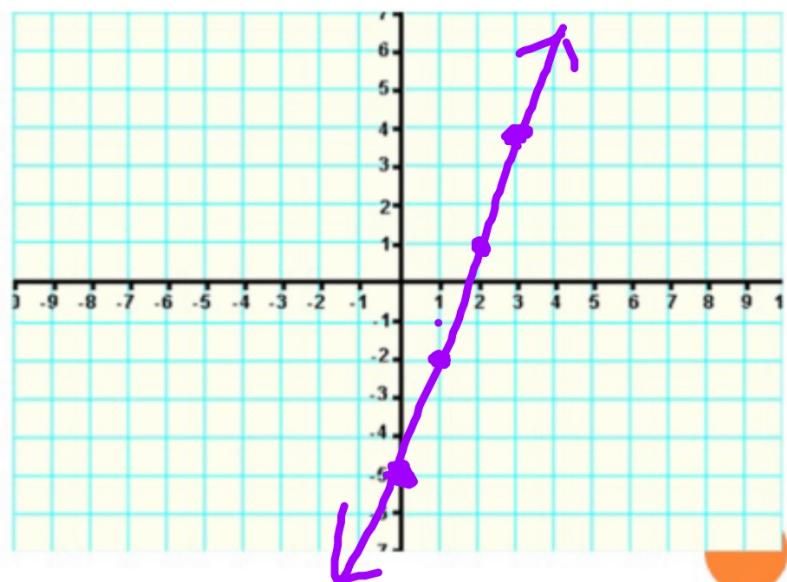


EXAMPLE:

o 2.  $y = 3x - 5$

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

$$(0, -5)$$

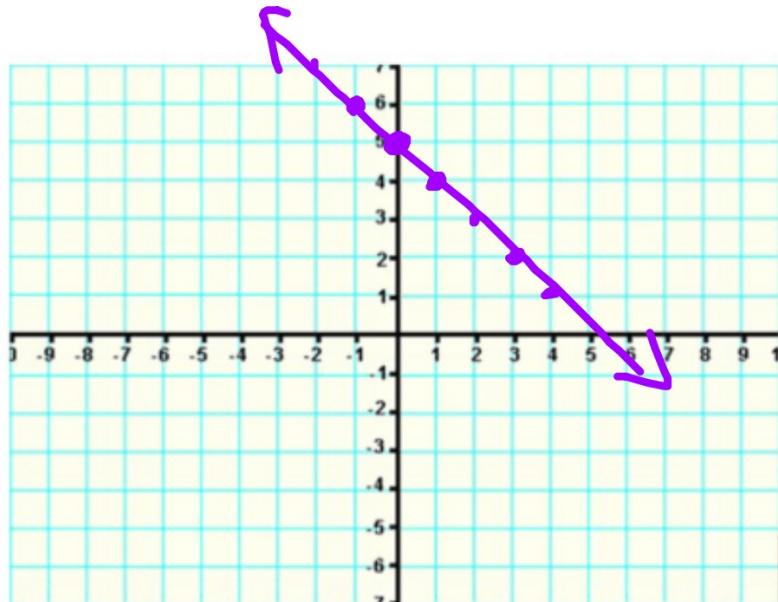


**EXAMPLE:**  
**GRAPH USING SLOPE AND Y-INTERCEPT**

o 3.  $y = -x + 5$

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

$(0, 5)$

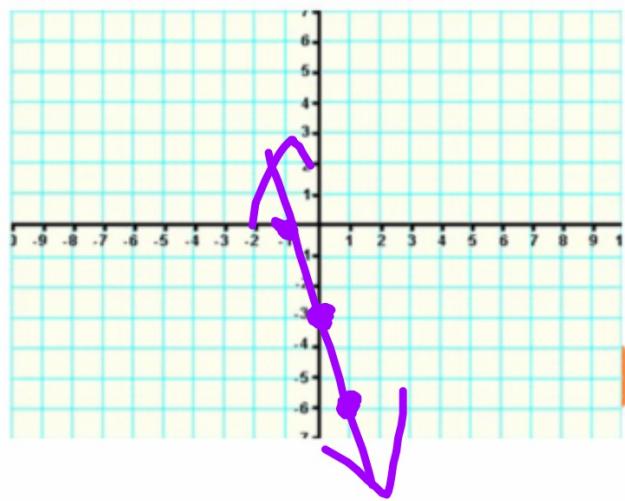
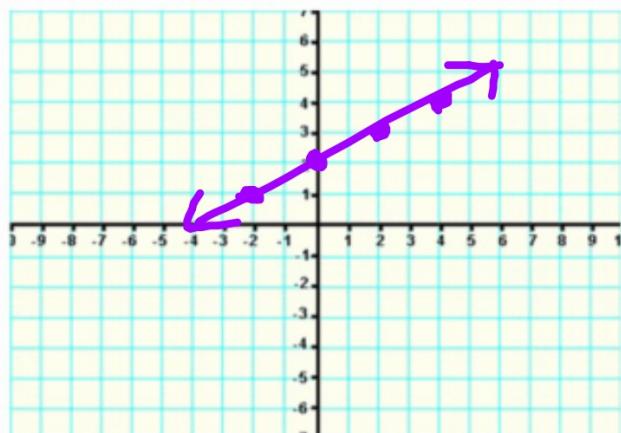


EXAMPLE:

- Graph the following using the slope and the y-intercept:

4.  $(0,2)$   $m = \frac{1}{2}$

5.  $(0,-3)$   $m = -\frac{3}{1}$



## GRAPHING USING A POINT AND SLOPE

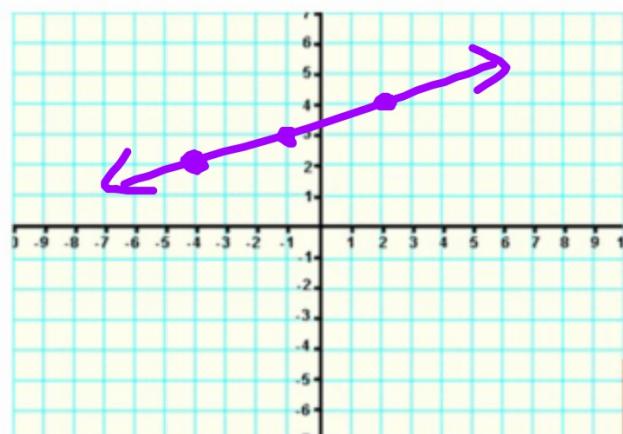
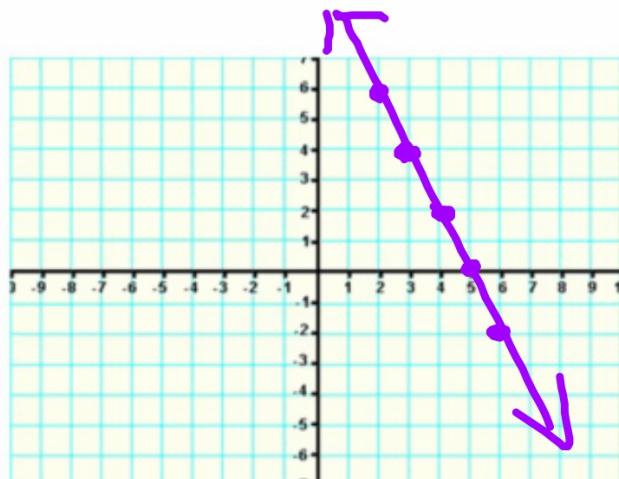
- Steps:

- Plot the point
- Use the slope to find a second point
- Draw a line through the 2 points



## EXAMPLES

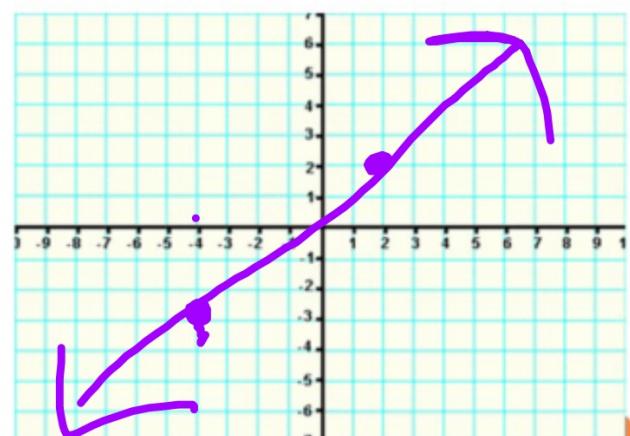
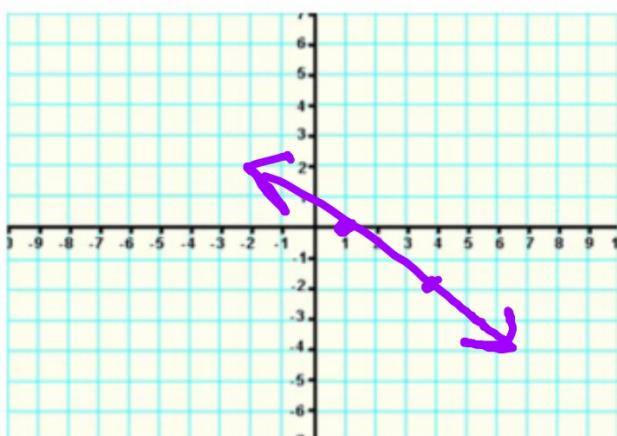
- 1.  $(3, 4)$ ,  $m = \frac{-2}{1}$
- 2.  $(-4, 2)$ ,  $m = 1/3$



## EXAMPLES

3.  $(1, 0)$ ,  $m = -2/3$

4.  $(-4, -3)$ ,  $m = 5/6$



## HOMEWORK

- Page 244 # 13-21 odd, 22-30 even

