Feb 2/17

Slope:

A number that states direction or steepness

Slope Formula:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Ex. What is the slope of a line that passes through (-2,5) and (-6, 2)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 5}{-6 - (-2)} = \frac{2-5}{-6+2} = \frac{-3}{-4} = \frac{3}{4}$$

Equation of a Line: $y = mx + b$; Slope-intercept form

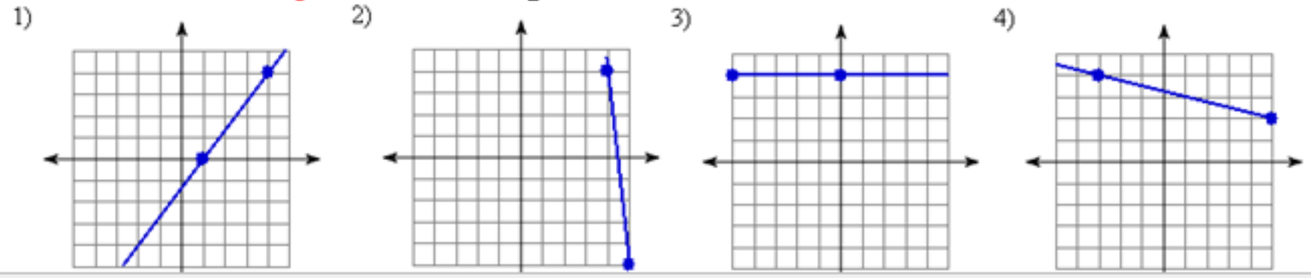
m :

b :

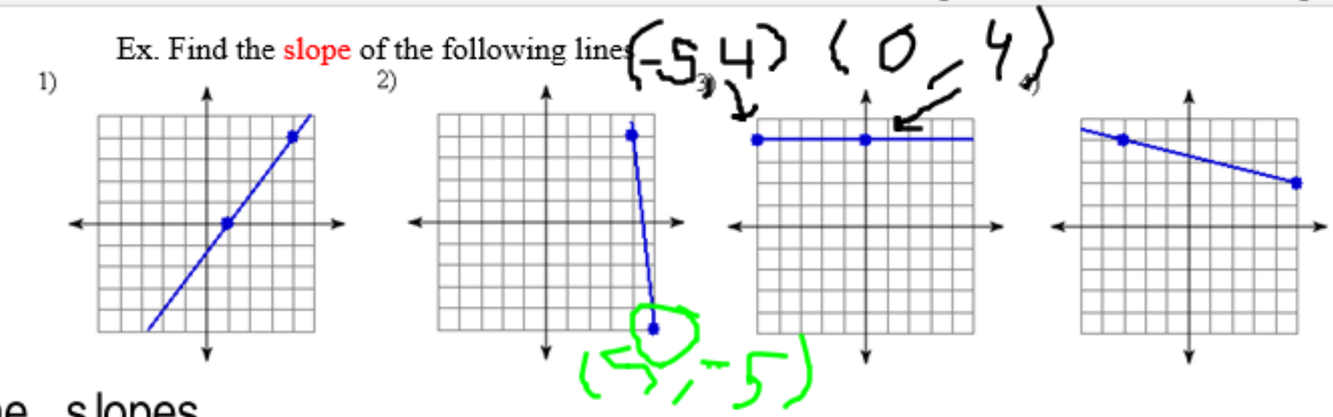
Standard form for the Equation of a Line is _____

Ex. Find the slope of the following lines

1) 2) 3) 4)



Ex. Find the slope of the following lines



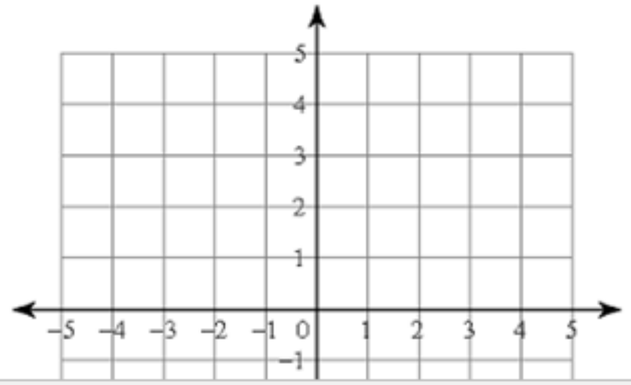
Students calculated the slopes for the lines as mini POLs. Check our Edsby class page for the answers

Steps to Graphing a Linear Equation:

1. Put the equation in _____ form
2. Plot the y-intercept on the graph
3. Plot the slope and draw the line

Graph the following lines given their equation:

$y=2x-3$	$y=-\frac{4}{3}x+4$	$2x-3y=6$



Equation of a Line: $y = mx + b$; Slope-intercept form

m : slope b : y-intercept

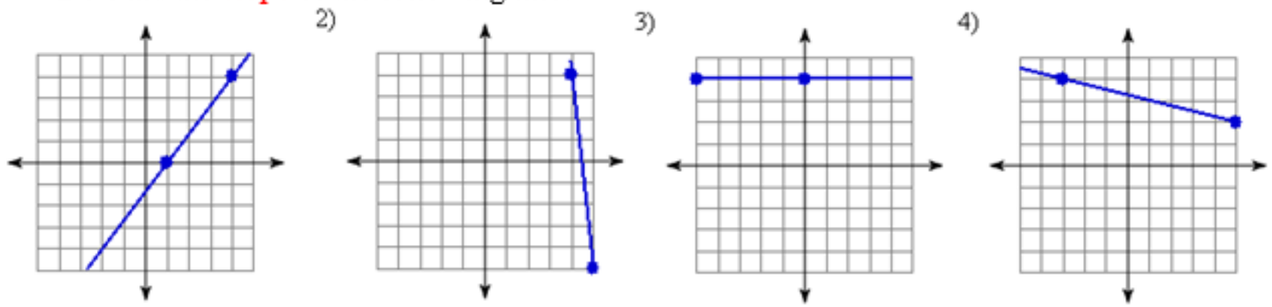
Standard form for the Equation of a Line is _____

$= Ax + By$

$m = \frac{rise}{run}$

Ex. Find the slope of the following lines

1) 2) 3) 4)



Steps to Graphing a Linear Equation:

1. Put the equation in slope-intercept form
2. Plot the y-intercept on the graph
3. Plot the slope and draw the line

3. Plot the slope and draw the line

Graph the following lines given their equation:

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

$m=\frac{2}{1}$

$b=-3$

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

$m=\frac{-4}{3}$

$b=4$

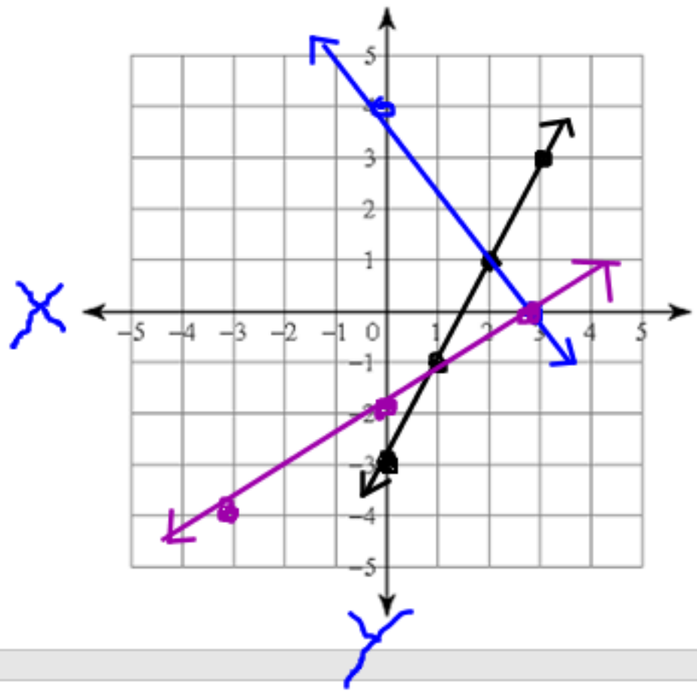
$2x-3y=6$

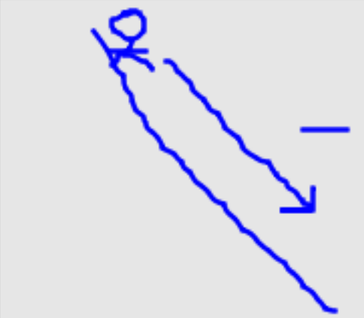
$-3y=-2x+6$

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

$m=\frac{2}{3}$

$b=-2$





Writing the Equation of a Line

Method 1: When you know the y-intercept, use the Slope-Intercept Form, $y= mx + b$

1. Identify the y-intercept (**b**) and slope (**m**)
2. Write the equation replacing the b and m