

Activator

Can you write a table for this line
 $y = 2x - 1$ using the calculator?

Page #1
Lesson 4.1

Where does it begin (**B**)?

Lines always begin at $(0, \mathbf{B})$.

The beginning is always next to 0.

x	y
0	-1
1	1
2	3

Today's Objective

Unit 4

Lesson 1

Students will be able to determine the slope and y-intercept of a line and **write an equation.**





Today's New Vocab (1 of 4)

Page #1
Lesson 4.1

What is the equation for every straight line?

$$Y = MX + B$$

x	y
0	B
1	y
2	y

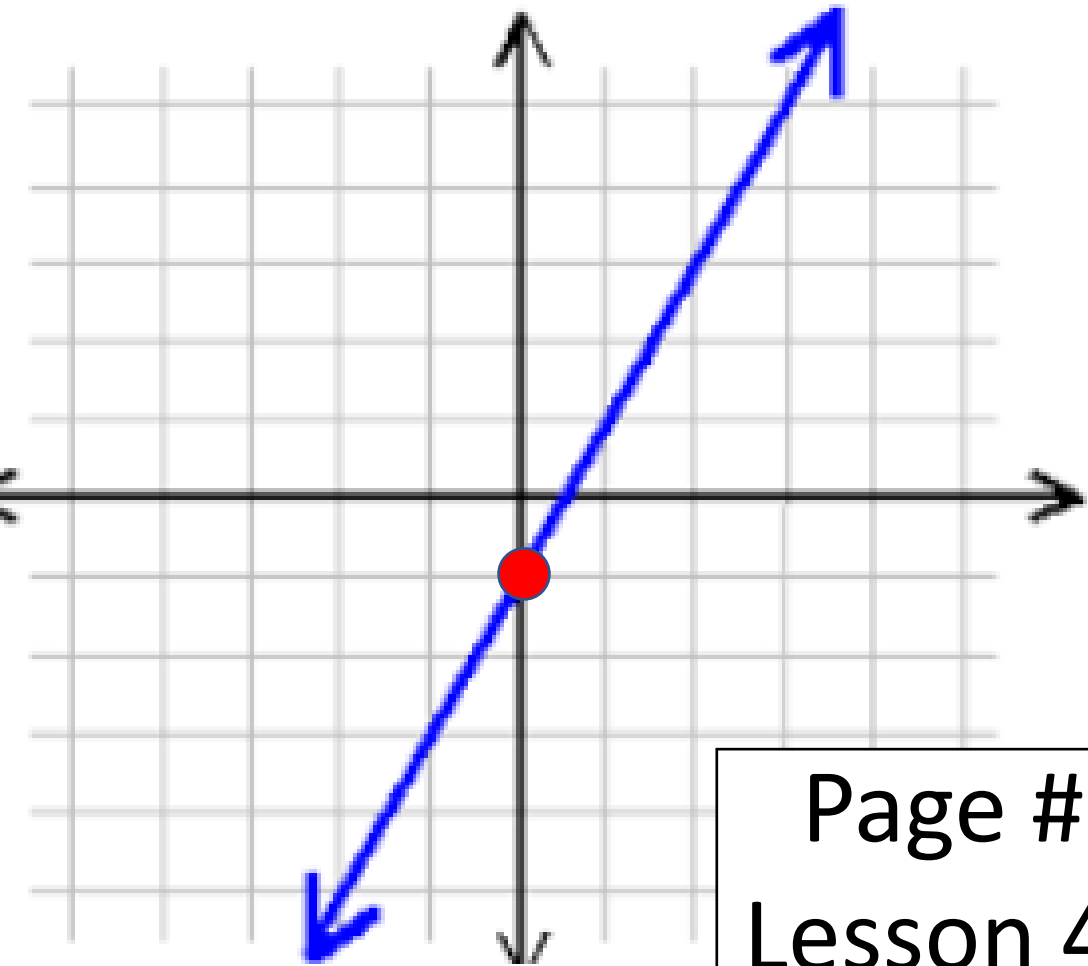
M

M = Slope and Change

B = Beginning

Today's New Vocab (2 of 4)

Write the y-intercept (B) of this line.



$$Y = MX + B$$

Plot the
point

B is the **B**eginning
on the **Y**-axis

What is the $(0, -1)$
y-intercept? $B = -1$

Today's New Vocab (3 of 4)

Write the slope (change) of this line.

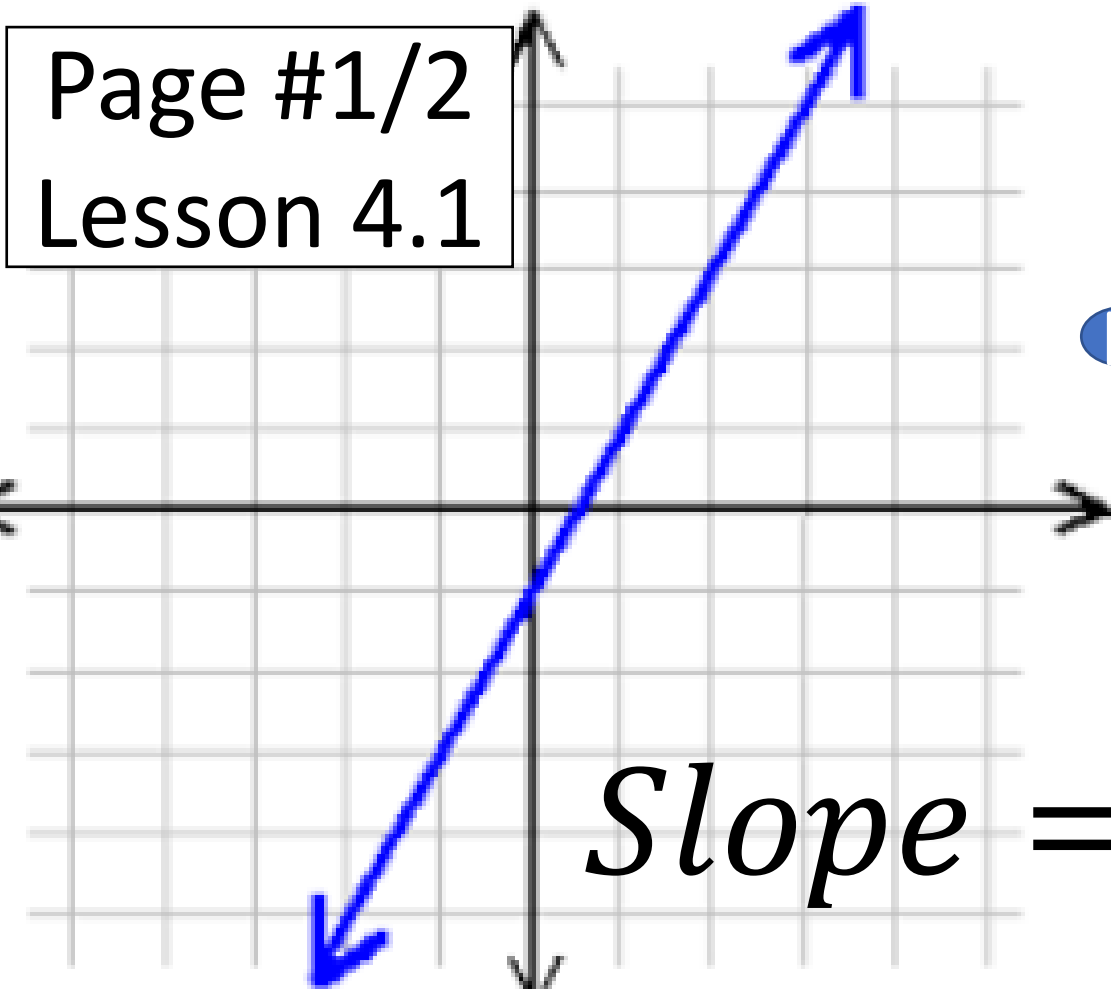
$$Y = MX + B$$

A

M is the **SLOPE**

B

Plot (2,3) and (0,-1)

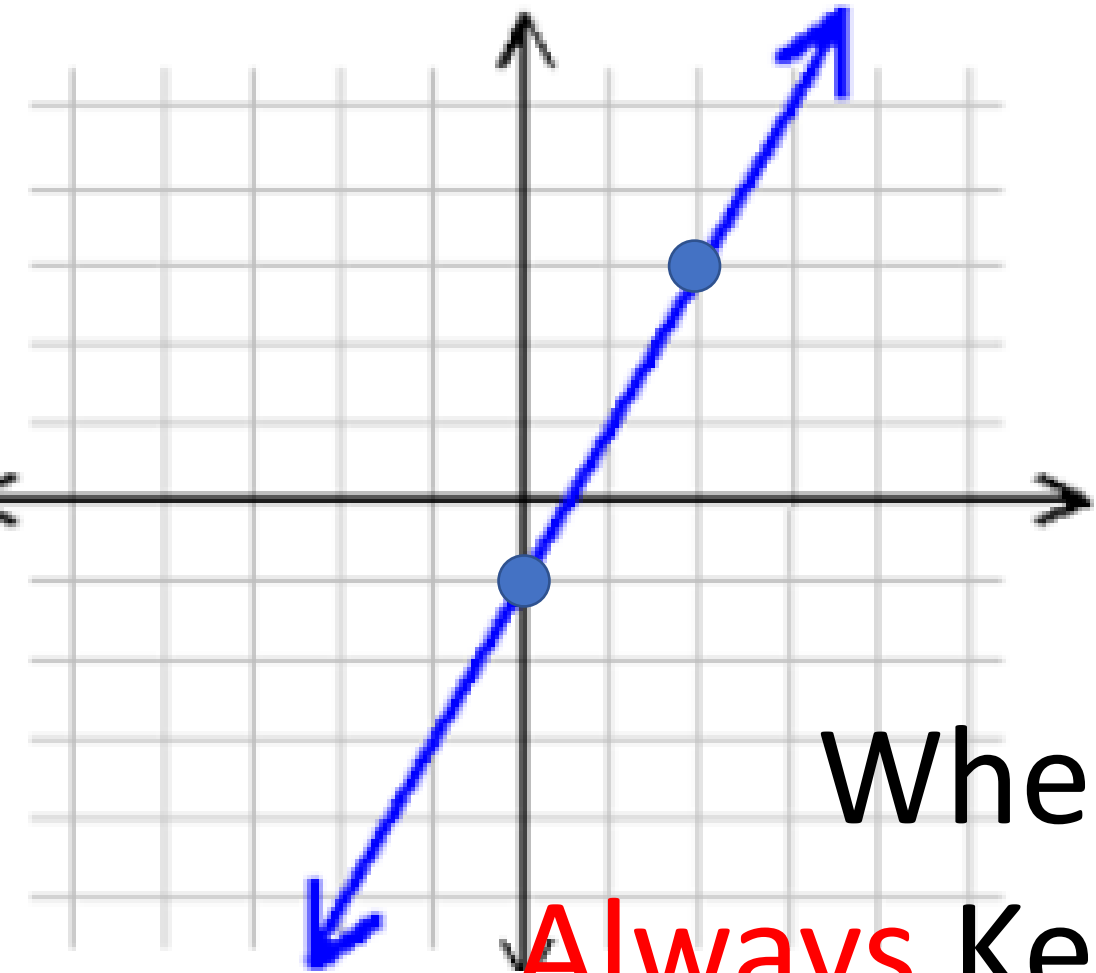


Page #1/2
Lesson 4.1

$$\text{Slope} = \frac{\text{Range} \left(\frac{\text{Up}}{\text{Down}} \right)}{\text{Domain} (L-R)} = \frac{+4}{2}$$

Today's New Vocab (4 of 4)

Write the equation of this line.



$$Y = MX + B$$

$$Y = \frac{+4}{2} X - 1$$

$$Y = 2X - 1$$

Page #2
Lesson 4.1

When writing an equation,

Always Keep x and y in the equation

Group Wars

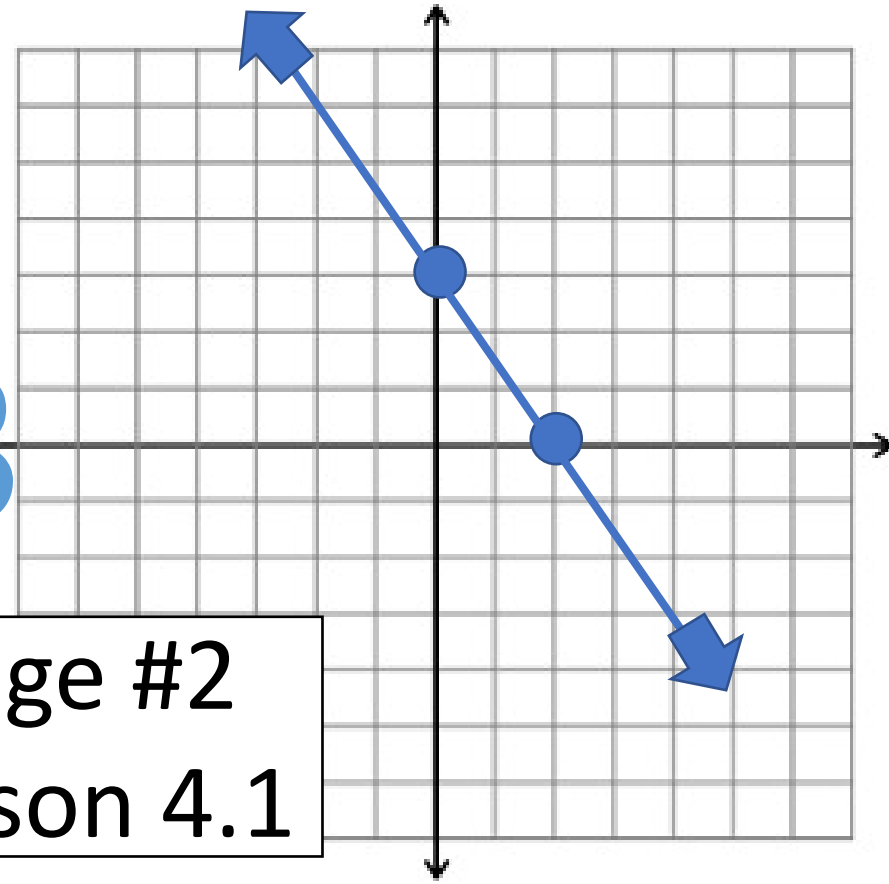
What is an equation for the line that passes through the coordinates (2,0) and (0,3)?

X	Y
0	3
2	0
4	-3

$$Y = MX + B$$

$$Y = \frac{-3}{2}X + 3$$

Make a table.



Group Work Questions

Pages 3-4
Lesson 4.1

Directions: All groups, please do all of the questions. Use your notes from last class to help you. [Ask 2 people before you ask me.]

Last time, we did Lesson 4.1 Notes.

1st Stop @ 8:16

*One person from each group will present one question.

Exit Ticket

Write the equation of this line.

x	y
0	-6
1	-3
2	0
3	3

$$Y = MX + B$$

$$Y = \frac{+3}{1} X - 6$$

Is the slope positive or negative? + Why? M is +



Lesson 4.1 Game

Get \$5 for
each correct
group of 3.

- * Get the bag from Mr. V.
- * Spread out the pieces.
- * Match the graph to the written equation and table.
- ** There are 4 groups with 3 in each.**