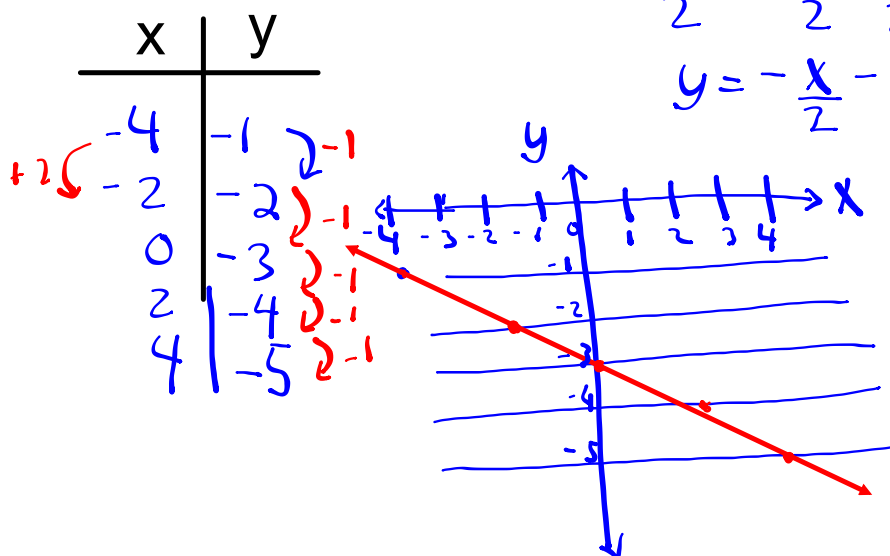


### Warm up

Graph the equation  $x + 2y = -6$  using a table of values.

$$\begin{aligned} 2y &= -x - 6 \\ \frac{2y}{2} &= \frac{-x}{2} - \frac{6}{2} \\ y &= -\frac{x}{2} - 3 \end{aligned}$$

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



**Slope (m)** - indicates the direction and steepness of a line.

$$y = mx + b$$

↑ slope      ↙ y-intercept (where it cuts the y-axis)

$$m = \frac{\Delta y}{\Delta x}$$

← change in y  
← change in x

$$y = \frac{4}{3}x - 1 \quad m = \frac{4}{3} \quad y\text{-int}(b) = -1$$

$$y = 2x + 7 \quad m = 2 \quad b = 7$$

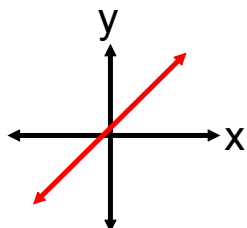
$$3x + 2y = 6$$

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

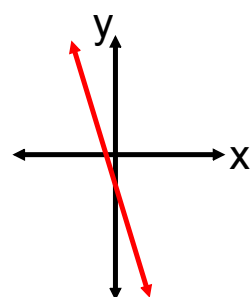
$$y = -\frac{3}{2}x + 3$$

$$m = -\frac{3}{2} \quad b = 3$$

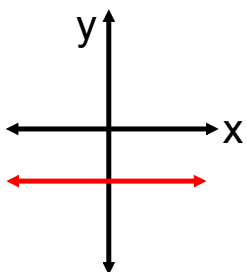
## SLOPE Patterns



m is positive. Line rises to the right (increasing)

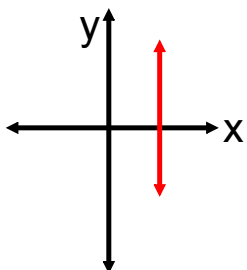


m is negative. Line rises to the left (decreasing)



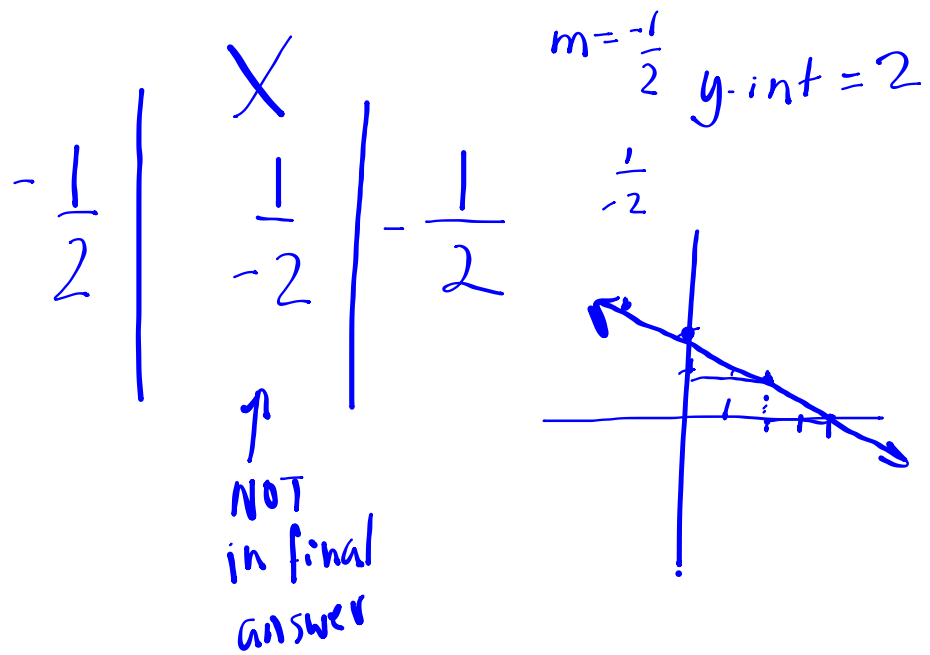
m is zero. Line is horizontal  
-thinking about skiing

$$y = c$$



m is undefined. Line is vertical  
-cannot ski straight down

$$x = c$$



# Worksheet



1.

x	y
-2	3
-1	5
0	7
1	9
2	11

Handwritten annotations: Blue arrows on the left point down from row to row, labeled '+1'. Blue arrows on the right point right from column to column, labeled '+2'.

$$m = 2$$

Graph Description

Increasing

2.

x	y
-3	5
-2	2
-1	-1
0	-4
1	-7

Handwritten annotations: Blue arrows on the left point down from row to row, labeled '+1'. Blue arrows on the right point right from column to column, labeled '-3'.

$$m = -3$$

Graph Description

Decreasing



# Class/Homework



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# 4 TO # 15





## Attachments

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Finding Slope from a Table.pdf