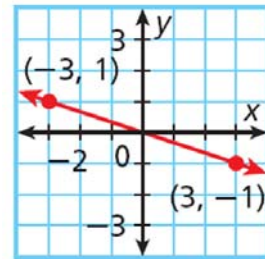
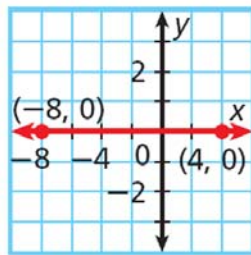
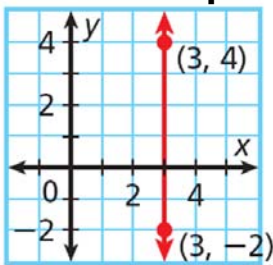


## Warm-up 11-1

1. Find the slope of the lines below.

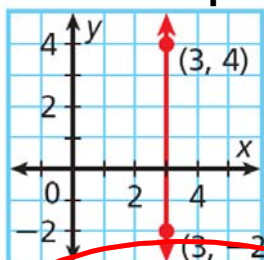


2. The table shows the number of bikes made by a company for certain years. Find the rate of change for each time period. During which time period did the number of bikes increase at the fastest rate?

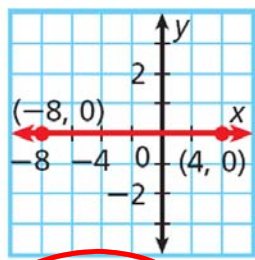
<b>Year</b>	1	2	5	7	11
<b>Bikes</b>	32	35	47	47	61

# Warm-up 11-1

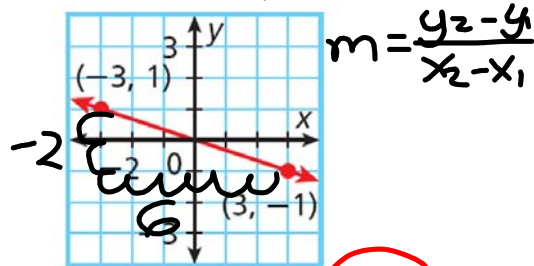
1. Find the slope of the lines below.



undefined



zero



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

$$m = \frac{-1 - 1}{3 - (-3)} = \frac{-2}{6} = -\frac{1}{3}$$

2. The table shows the number of bikes made by a company for certain years. Find the rate of change for each time period. During which time period did the number of bikes increase at the fastest rate?

$$\frac{3}{1}, \frac{12}{3}, \frac{0}{2}, \frac{14}{4}$$

$$3, 4, 0, 3.5$$

Year	1	2	5	7	11
Bikes	32	35	47	47	61

$$3 \quad 12 \quad 0 \quad 14$$

years 2 to 5

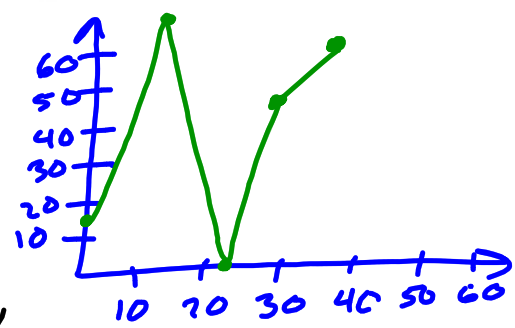
13. The table shows the distance of an elevator from the ground floor at different times. Graph the data and show the rates of change.

Time (s)	0	15	23	30	35
Distance (m)	30	70	0	45	60

13. The table shows the distance of an elevator from the ground floor at different times. Graph the data and show the rates of change.

Time (s)	0	15	23	30	35
Distance (m)	30	70	0	45	60

Handwritten annotations below the table:  $15$  (blue),  $8$  (red),  $7$  (black),  $5$  (green) above the time values;  $40$  (blue),  $-70$  (red),  $45$  (black),  $15$  (green) below the time values.



$$\frac{40}{15} = \frac{8}{3} \text{ m/s}$$

$$\frac{45}{7} \text{ m/s}$$

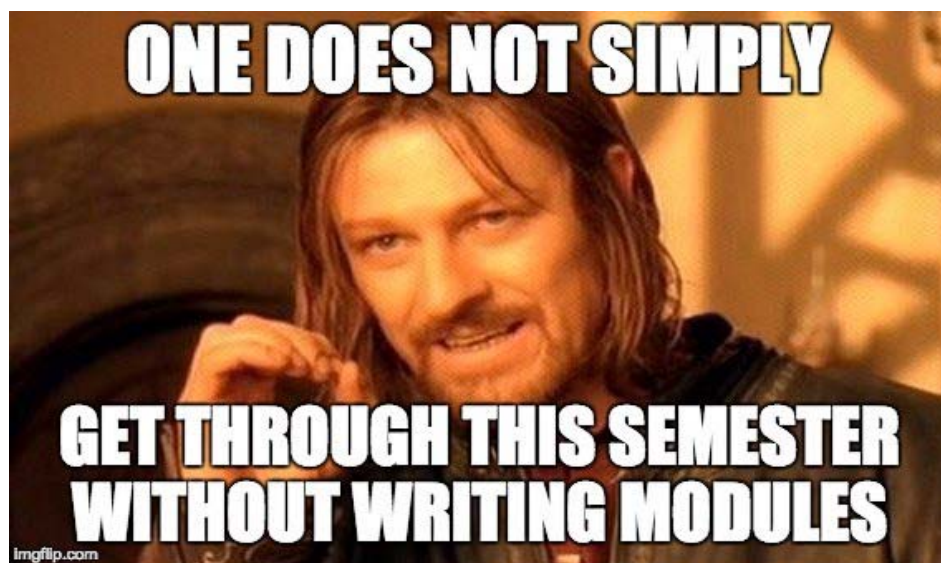
$$\frac{-70}{8} = -\frac{35}{4} \text{ m/s}$$

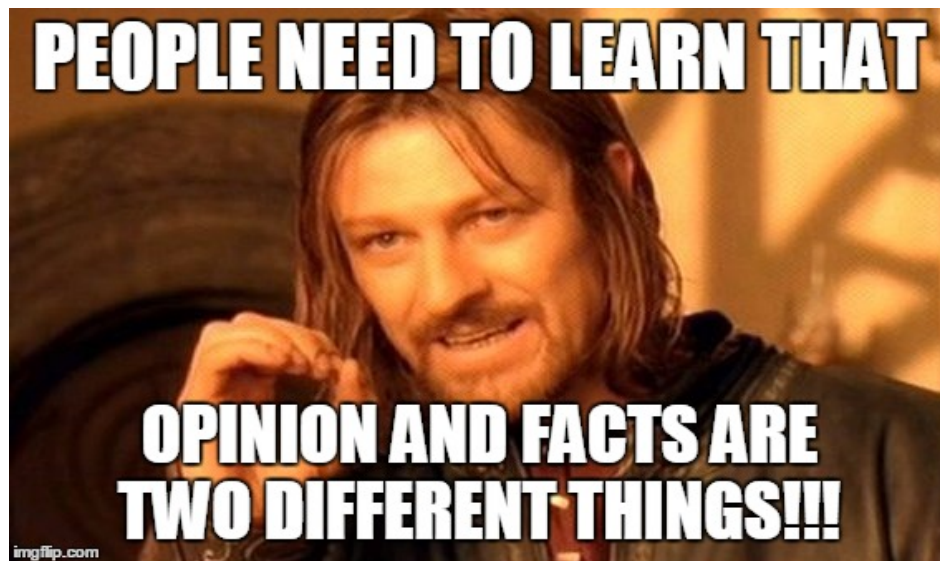
$$\frac{15}{5} = \frac{3}{1} \text{ m/s}$$

$$\frac{70-30}{15-0} = \frac{40}{15}$$

What do you notice and wonder about these memes?



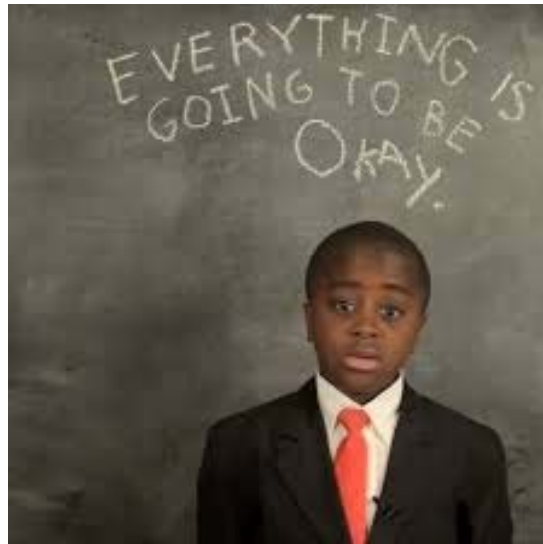
















## What do you notice and wonder about the cover of your Algebra 1 book?

### Notice:

- the book is red
- it says "Algebra 1"
- it looks like a centipede on the front
- it looks like a shell on the front
- it looks like a staircase on the front
- there is a dolphin
- it is common core
- Holt wrote it
- it fades from red to black
- it is the teacher's edition
- ...

### Wonder:

- who chose the cover
- what is on the back of the book
- what is inside the book
- who made algebra
- why is the cover the way it is
- why is there a dolphin
- who is Holt
- what is common core
- what kind of problems are inside
- why do we do algebra
- ...

# Inquiry Discovery Activity

I notice...

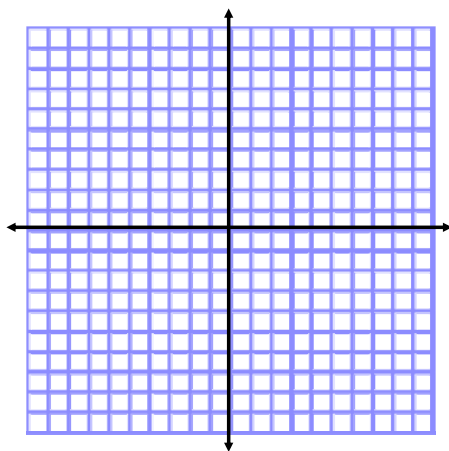
I wonder...

Name: \_\_\_\_\_

$$(1, 5); (2, 7)$$

$$(y - 5) = 2(x - 1)$$

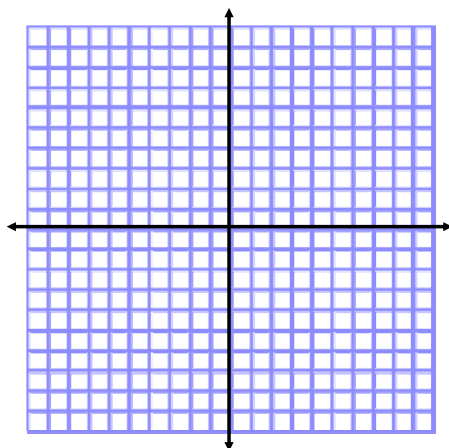
$$y = 2x + 3$$



$$(2, -3); (4, 3)$$

$$(y + 3) = 3(x - 2)$$

$$y = 3x - 9$$





# Homework

pg. 272 #1-5 (odd)

pg. 279 #1-5 (odd)