Agenda

- Homework:
  - Finding Slope from Two Points WS
  - AM

- Materials
  - Calculator
  - Notebook

- DO NOW:
  - Take out homework
  - On your DESK:

1) Find the rate of change

x	y
-2	4
0	3
2	2

2) Simplify: $(3x^2)^4$

$3x$

Do Now

1. Find the rate of change

x	y
-2	4
0	3
2	2

2. Simplify: $(3x^2)^4$

Set up Cornell Notes

Topic: Slope from Two Points

Essential Question: How do you find slope from two points?

Date	Topic	Page #
1/13/16 1/13/16	Slope – 2 Points	

How have we found slope so far?

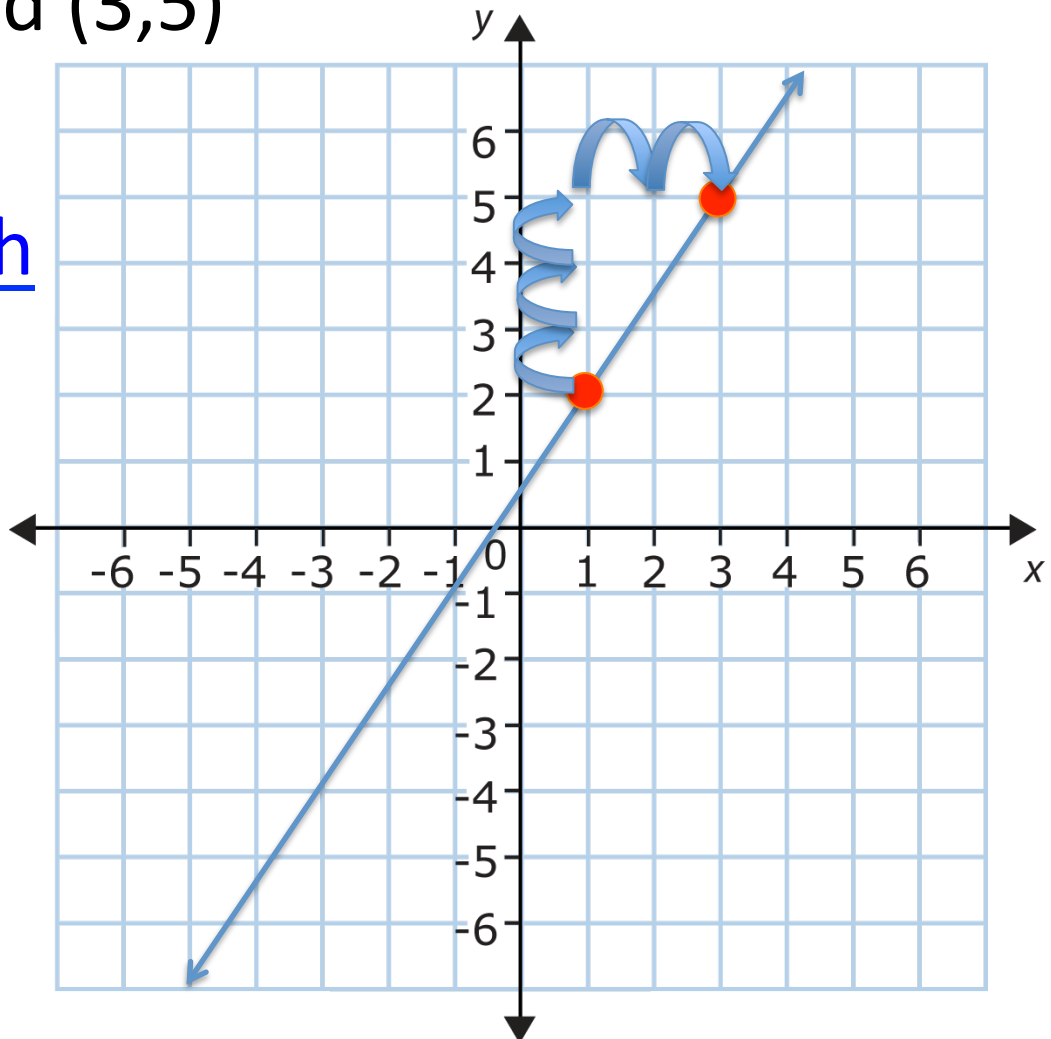
$$\frac{\text{rise}}{\text{run}} = \frac{\text{the change in the y's}}{\text{the change in the x's}}$$

For GRAPHS

For TABLES

How do you find slope given 2 points on a line?

- Example: (1, 2) and (3,5)



We *could* use a graph

1) Plot the points
2) Use rise/run

$$\frac{\text{rise}}{\text{run}} = \frac{+3}{+2}$$

How do you find slope given 2 points on a line?

- **Example: (1, 2) and (3,5)**

We *could* use a table

1) Fill in the table
2) Use change in y/change in x

x	y
1	2
3	5

+2 (change in x) +3 (change in y)

$$\frac{\text{the change in the y's}}{\text{the change in the x's}} = \frac{+3}{+2}$$

How do you find slope using two points?

- Let's use what we know about finding slope from tables:

x	y
1	2
3	5

x_1 x_2 +2 y_1 y_2 +3

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

NEW METHOD

How can we use our new method to find the slope between the points (1, 2) and (3, 5)?

$(1, 2)$ and $(3, 5)$

x_1 y_1 x_2 y_2

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{3}{2}$$

When should you use $\frac{y_2 - y_1}{x_2 - x_1}$?

- When given two points
- Example: Find the slope between the points (-3, 4.3) and (21, 16.3)

x_1 y_1 x_2 y_2

$$\frac{16.3 - 4.3}{21 + 3} = \frac{12}{24} = \frac{1}{2}$$