

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

# 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?

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1/13/16 1/13/16	Slope – 2 Points	

How have we found slope so far?



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



For GRAPHS



For TABLES

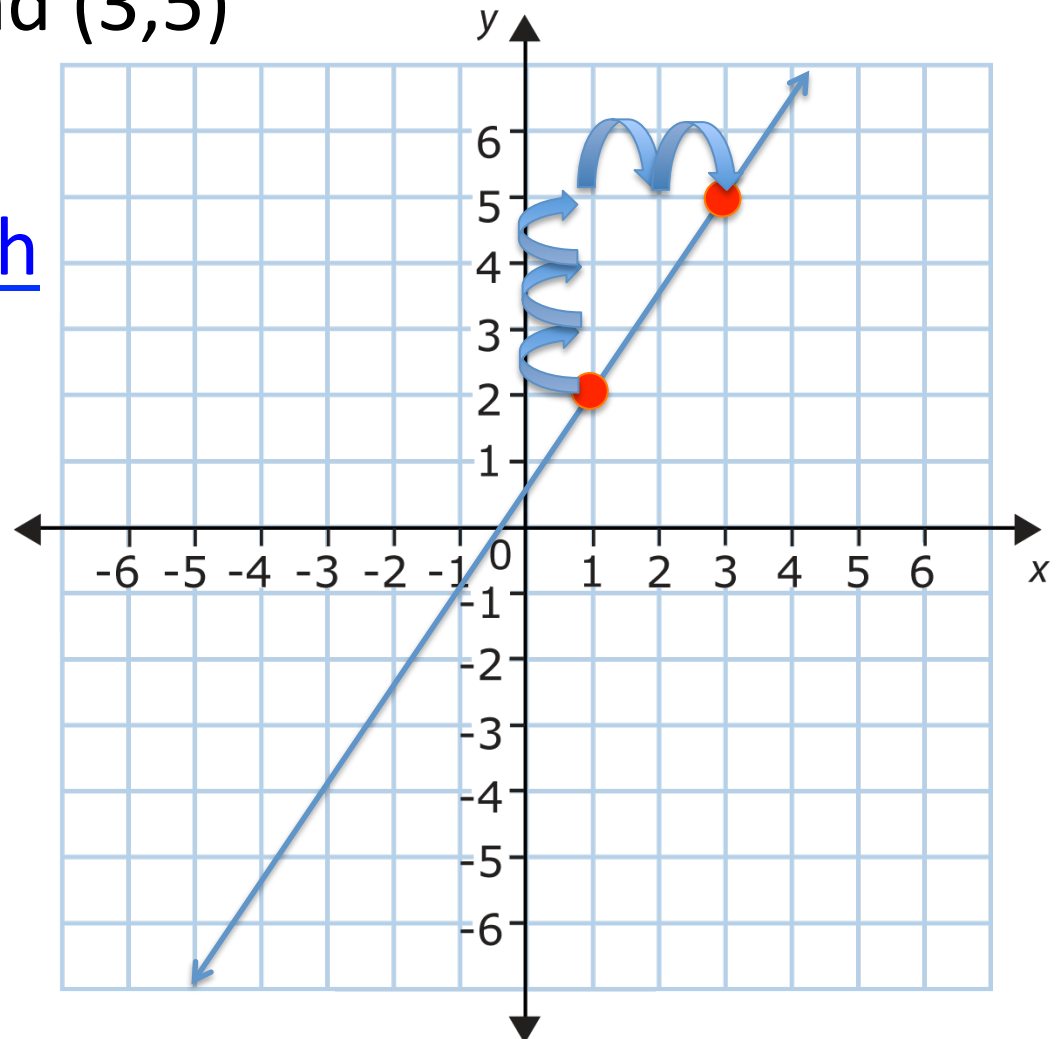
# How do you find slope given 2 points on a line?

- 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

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

x	y
1	2
3	5

The diagram illustrates the change in x and y values between two points. A table with two columns, 'x' and 'y', is shown. The first row contains the values 1 and 2, and the second row contains 3 and 5. A blue arrow on the left points from the first row to the second row, labeled '+2', indicating the change in x. A blue arrow on the right points from the first row to the second row, labeled '+3', indicating the change in y.

# How do you find slope using two points?



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

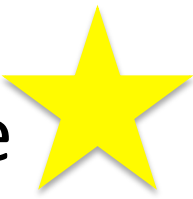
x	y
1	2
3	5

+2  $x_1$   $x_2$   $y_1$   $y_2$  +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)?



$$\begin{matrix} (1, 2) & \text{and} & (3, 5) \\ x_1 & y_1 & x_2 & y_2 \end{matrix}$$

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



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)

$$x_1 \quad y_1 \qquad x_2 \quad y_2$$

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