

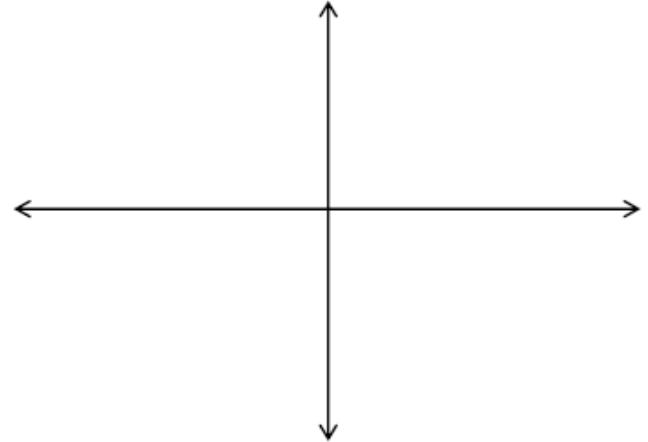
4.1 Finding and Interpreting Slope

Week 9 Monday Course 3 Warm-up

Find the Slope
 $(-4, 3)$ $(-5, -2)$



Sketch the points $(-4, 3)$ and $(-5, -2)$



Solve an Equation
Containing Fractions

$$\frac{a}{2} + \frac{1}{5} = 17.$$

Write number in scientific notation
9,040,000,000

Simplify Expression

$$2^6 \cdot 2^4$$

Solve an Equation
Containing Decimals
 $7.8y + 2 = 165.8$

Solve & Check
 $8x - 13 = 5x + 14$

Week 9 Monday Course 3 Warm-up



Find the Slope

$$(-4, 3) \quad (-5, -2)$$

$$\frac{-2-3}{-5-(-4)} = \frac{-5}{-1} = 5$$

Given two points:

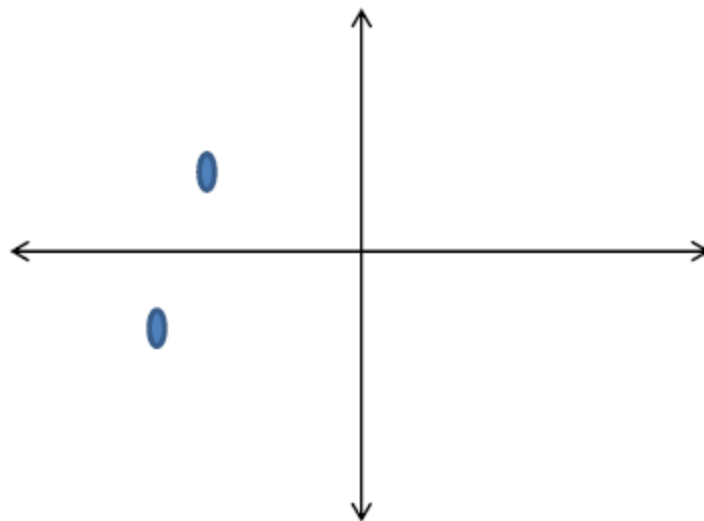
$$(x_1, y_1) \quad (x_2, y_2)$$

Slope Formula:

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

$$x_2 - x_1$$

Sketch the points $(-4, 3)$ and $(-5, -2)$



Solve an Equation
Containing Fractions

$$\frac{a}{2} + \frac{1}{5} = 17.$$

$$\frac{168}{5}$$

Write number in scientific notation

9,040,000,000

$$9.04 \times 10^9$$

Simplify
Expression

$$2^6 \cdot 2^4$$

$$2^{10}$$

Solve an Equation
Containing Decimals

$$7.8y + 2 = 165.8$$

$$21$$

Solve & Check

$$8x - 13 = 5x + 14$$

$$x = 9$$

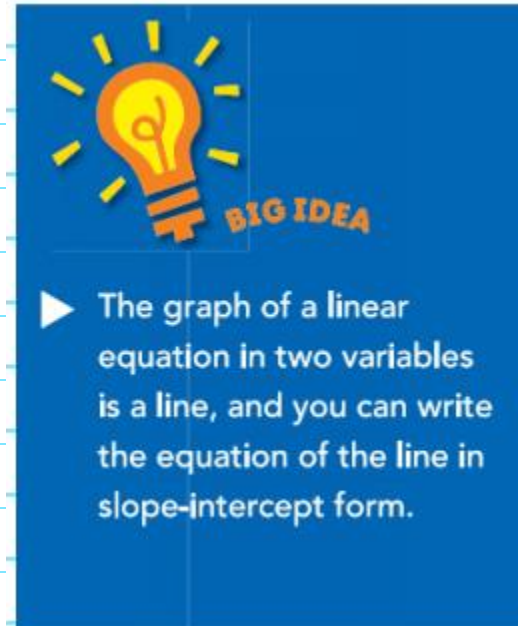
4.1 Finding and Interpreting Slope

Objective

TSW find the slope of lines by

*graphing two points
*using slope formula $\frac{y_2 - y_1}{x_2 - x_1}$

when playing the game of
Ups and Downs.



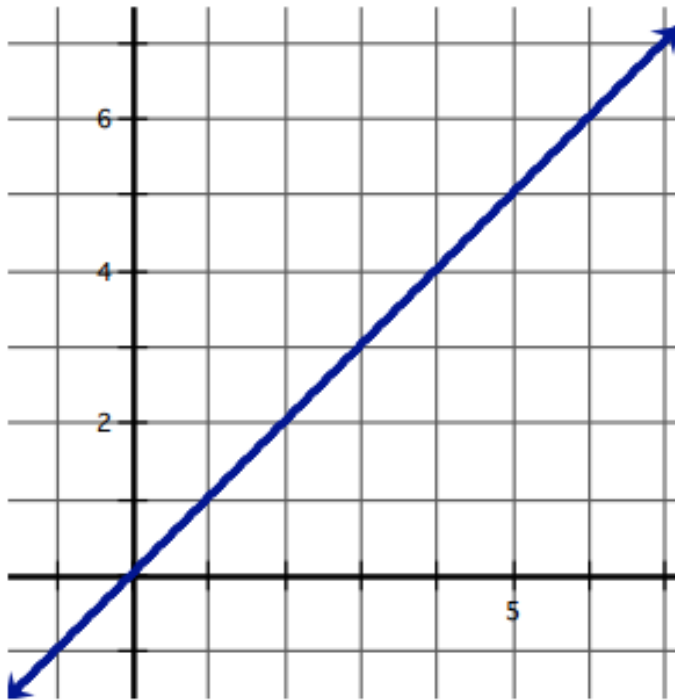
Common Core State Standards 8EE 5 Graph proportional relationships, interpreting the unit of rate as the slope a graph.

8EE6...derive the equation $y=mx$ for a line through the equation $y=mx+b$ for a line intercepting the vertical axis at b

Mathematical Practices 2 Reason 4 Model Mathematics 5 Use tools 8 Express regularity in reasoning

4.1 Finding and Interpreting Slope Day 5

Find the slope of the line using this graph



To find the slope of a line using graphs...

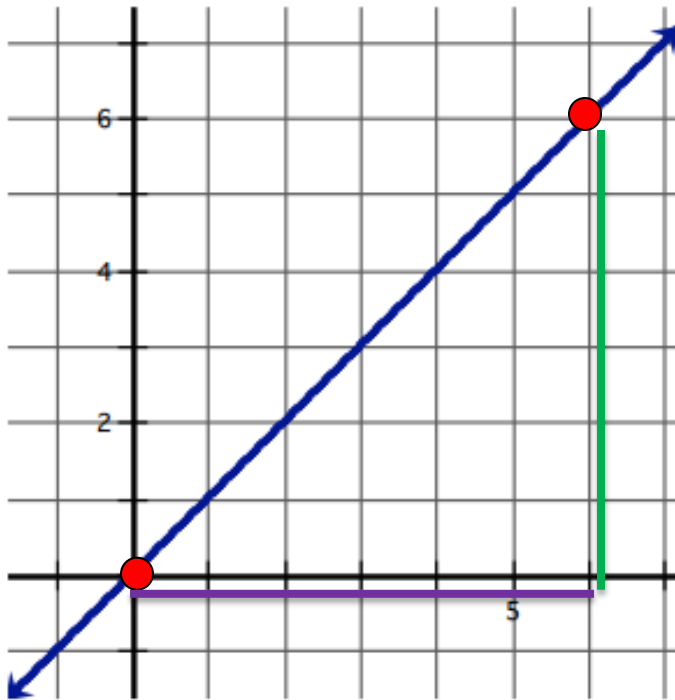
- *Find two points

- *Count the rise and then run

- *Write the slope as $\frac{y}{x}$

4.1 Finding and Interpreting Slope Day 5

Find the slope of the line using this graph



To find the slope of a line using graphs...

*Find two points

$(0,0)$ and $(6,6)$

*Count the rise (6) and then run (6)

*Write the slope as $\frac{y}{x} = \frac{6}{6}$

$$m = 1$$

4.1 Finding and Interpreting Slope Day 5

Find the slope of the line that contains these coordinate points. Remember to use the slope

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

(9, 0)

and

(9, -1)

To find the slope of a line using two coordinate points...

*Label the x and y coordinates

*Find the change of y and the change of x by **SUBTRACTING**

*Write the slope as $\frac{\Delta y}{\Delta x}$

4.1 Finding and Interpreting Slope Day 5

Find the slope of the line that contains these coordinate points. Remember to use the slope

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

(9, 0)

x_1 y_1
and

(9, -1)

x_2 y_2

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-1 - 0}{9 - 9} = \frac{-1}{0}$$

$m = \text{undefined}$

To find the slope of a line using two coordinate points...

*Label the x and y coordinates

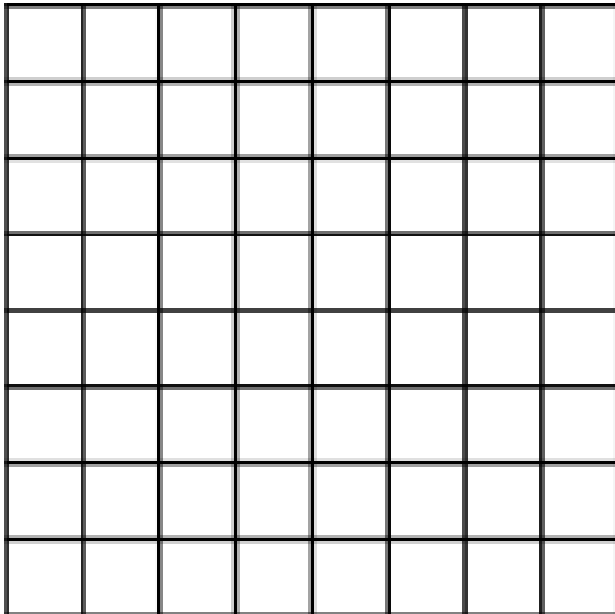
*Find the change of y and the change of x by **SUBTRACTING**

*Write the slope as $\frac{\Delta y}{\Delta x}$

4.1 Finding and Interpreting Slope Day 5

Graph a line with the following slope

$$\text{slope} = -\frac{1}{2}$$

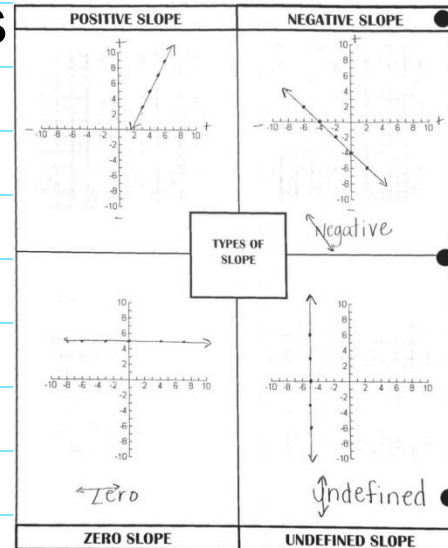


To graph a line with a slope...

- *create coordinate plane with points (0,0)

- *refer to positive, negative, zero, and undefined slope

notes



- *Write the slope as $\frac{\Delta y}{\Delta x}$

4.1 Finding and Interpreting Slope Day 5

Graph a line with the following slope

$$\text{slope} = -\frac{1}{2}$$

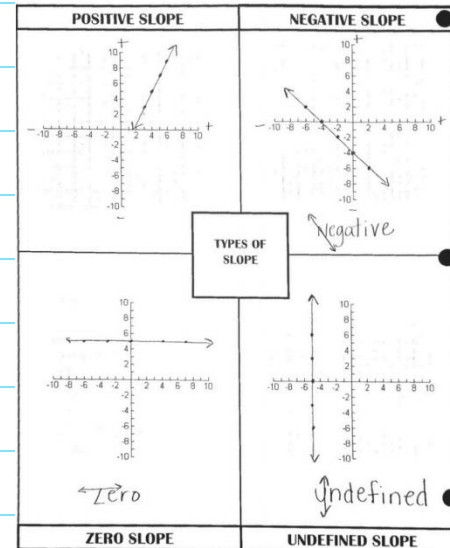


down 1 (rise) $\frac{\Delta y}{\Delta x}$
over 2 (run)

To graph a line with a slope...

* create coordinate plane with points (0,0)

* refer to positive, negative, zero, and undefined notes



* Write the slope as $\frac{\Delta y}{\Delta x}$

Ups & Downs

HOW TO PLAY THE GAME



1. Stack the Ups & Downs cards face down so you can't see the questions.
2. Have each person roll the number cube to see who goes first. The person who rolls closest to 1, starts the game. If more than one person rolls a 1, they roll again. Once you have determined who goes first, the order goes clockwise.
3. The first player to go chooses a Ups & Downs card and everyone solves the problem on scratch paper. If the player answers the problem correctly, they roll the number cube and move that number of spaces on the game board.
4. If you land on a square that has a dot, you must follow the arrow up or down. Examples:
If you land on square 20 you would follow the arrow up to square 35.
If you land on square 26 you would follow the arrow down to square 9.
If you land on square 32, you would stay on square 32 because it doesn't have a dot.
5. If you land on a square that has **BONUS ROLL**, then you roll again.
6. The first person to get to the finish line (or beyond the finish line) is the **WINNER!**

33	34	35	36	37	38	39	40
32	31	30	29	28	27	26	25
17	18	19	20	21	22	23	24
16	15	14	13	12	11	10	9
1	2	3	4	5	6	7	8

Copyright © Mrs. Fisher @ www.mrsfisher.blogspot.com



Lesson 3.3 Evaluate Linear Equations with Two Variables (Day 1)

Group Practice #Up and Downs

Ups & Downs

Name _____ Date _____

A.	B.	C.	D.
E.	F.	G.	H.
I.	J.	K.	L.
M.	N.	O.	P.
Q.	R.	S.	T.
U.	V.	W.	X.

Homework

Name: _____
Monday/Tuesday Homework
Finding Slope From Two Points #1-16

Find the slope of the line through each pair of points

- 1) $(19, -16), (-7, -15)$
- 2) $(1, -19), (-2, -7)$
- 3) $(-4, 7), (-6, -4)$
- 4) $(20, 8), (9, 16)$
- 5) $(17, -13), (17, 8)$
- 6) $(19, 3), (20, 3)$
- 7) $(3, 0), (-11, -15)$
- 8) $(19, -2), (-11, 10)$



Lesson Check – Find the slope of a line using two points and graphs (created or given)