

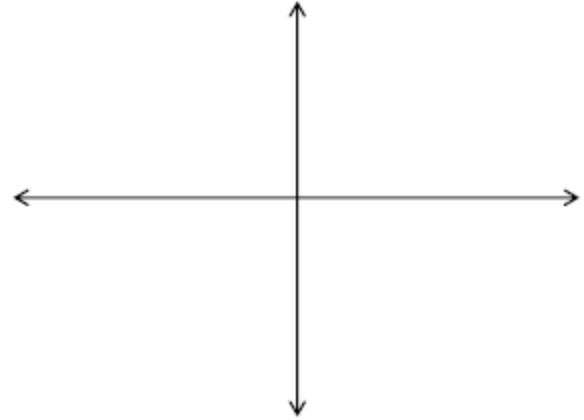
Lesson 4.1 Finding and Interpreting Slope

Week 8 Monday Course 3 Warm-up

Find the Slope
(4, -5) (3, -9)



Sketch the points (4, -5) and (3, -9)



Solve an Equation
Containing Fractions

$$\frac{2}{3} + \frac{3k}{4} = \frac{71}{12}$$

Write number in scientific notation
56,900,000

Simplify Expression

$$5^{-2} \cdot 5^3$$

Solve an Equation
Containing Decimals
 $1.06y - 3 = 0.71$

Solve & Check
 $5x - 10 = 2x + 11$

Lesson 4.1 Finding and Interpreting Slope

Week 8 Monday Course 3 Warm-up

Find the Slope
(4, -5) (3, -9)

$$\frac{-9 - (-5)}{3 - 4} = \frac{-4}{-1} = 4$$

Given two points:

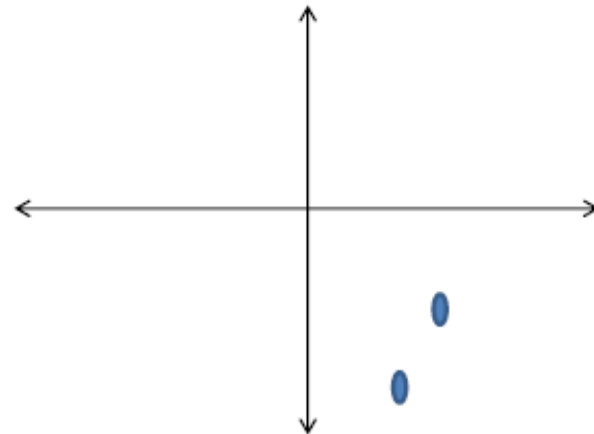
(x_1, y_1) (x_2, y_2)

Slope Formula:

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



Sketch the points (4, -5) and (3, -9)



Solve an Equation
Containing Fractions

$$\frac{2}{3} + \frac{3k}{4} = \frac{71}{12}$$

7

$$5^1 = 5$$

Write number in scientific notation

56,900,000

$$5.69 \times 10^7$$

Simplify
Expression

$$5^{-2} \cdot 5^3 = 5^1 = 5$$

Solve an Equation
Containing Decimals

$$1.06y - 3 = 0.71$$

3.5

Solve & Check

$$5x - 10 = 2x + 11$$

X=7

Lesson 4.1 Finding and Interpreting Slope (Day 1)

Objective


TSW find the slope of lines by

*interpreting table

*graphing

*using slope formula $= \frac{y_2 - y_1}{x_2 - x_1}$

*using formula $y=mx+b$



▶ The graph of a linear equation in two variables is a line, and you can write the equation of the line in slope-intercept form.

Common Core State Standards

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

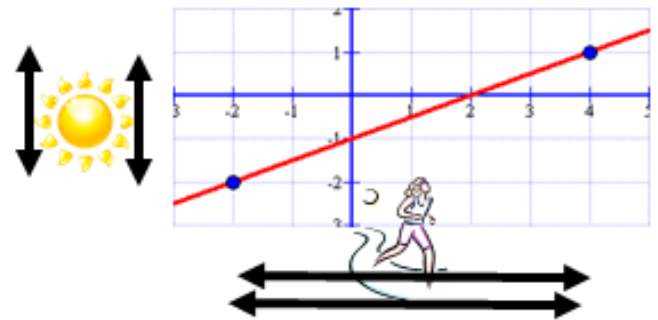
8 EE 6 ...derive the equation $y=mx$ for a line through the equation $y=mx+b$ for a line intercepting the vertical axis at b

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

Lesson 4.1 Finding and Interpreting Slope (Day 1)

What is SLOPE?

Slope describes the
_____ of a line.



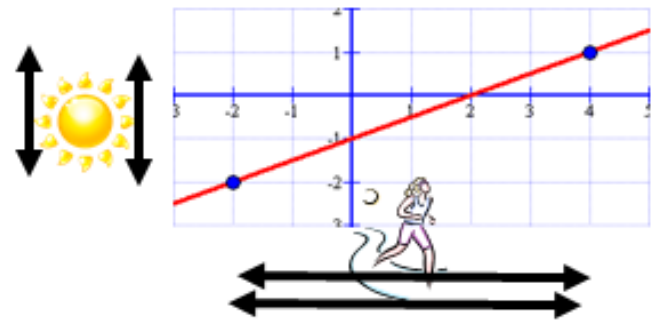
$$\frac{\text{RISE}}{\text{RUN}} = \frac{\text{vertical change}}{\text{horizontal change}}$$

Lesson 4.1 Finding and Interpreting Slope (Day 1)

What is SLOPE?

Slope describes the steepness of a line.

$\frac{\text{change } y}{\text{change } x}$ $\frac{\text{rise}}{\text{run}}$



$$\frac{\text{sun}}{\text{runner}} = \frac{\text{RISE}}{\text{RUN}} = \frac{\text{vertical change}}{\text{horizontal change}}$$

Lesson 4.1 Finding and Interpreting Slope (Day 1)



RISE



RUN

From a Table

1. Find the _____ of the x and y values
2. Write the slope as _____



What is
Slope des

constant rate

$$\frac{y}{x}$$

Lesson 4.1 Finding and Interpreting Slope (Day 1)



RISE



RUN

From a Table

1. Find the constant rate of the x and y values
2. Write the slope as $\frac{y}{x}$

x	y
1	2
2	4
3	6
4	8
5	10
6	12

x	y
3	11
6	14
9	17
12	20
15	23

$$\frac{4}{3}$$

constant rate

$$\frac{y}{x}$$

$$\frac{12}{6} = \frac{2}{1}$$

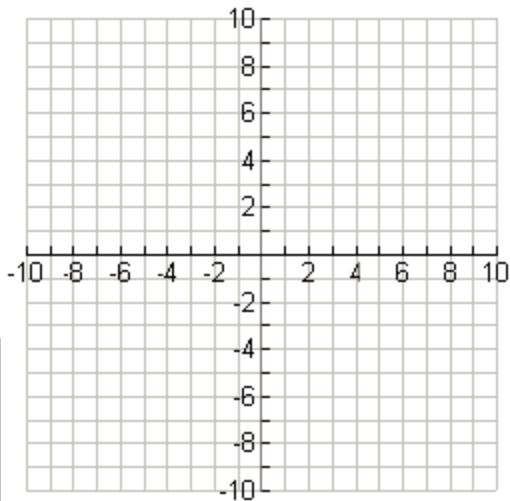
What is
Slope de:
steepne

Lesson 4.1 Finding and Interpreting Slope (Day 1)

a) Line 1: (0, 1) and (4, 2)

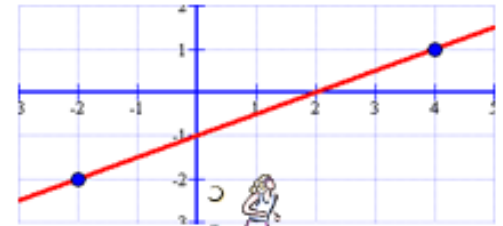
From a Graph

1. Choose two _____ on the line
2. Count the _____ then the _____
3. Write the slope as _____



What **SLOPE?**

describes the _____ of a line.



points

rise

run



RISE



RUN

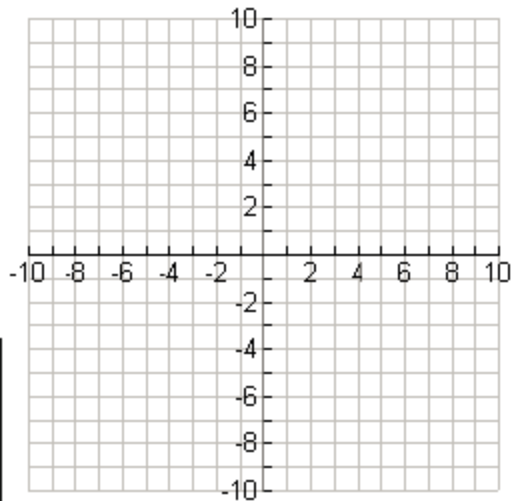
$\frac{y}{x}$

Lesson 4.1 Finding and Interpreting Slope (Day 1)

a) Line 1: (0, 1) and (4, 2)

From a Graph

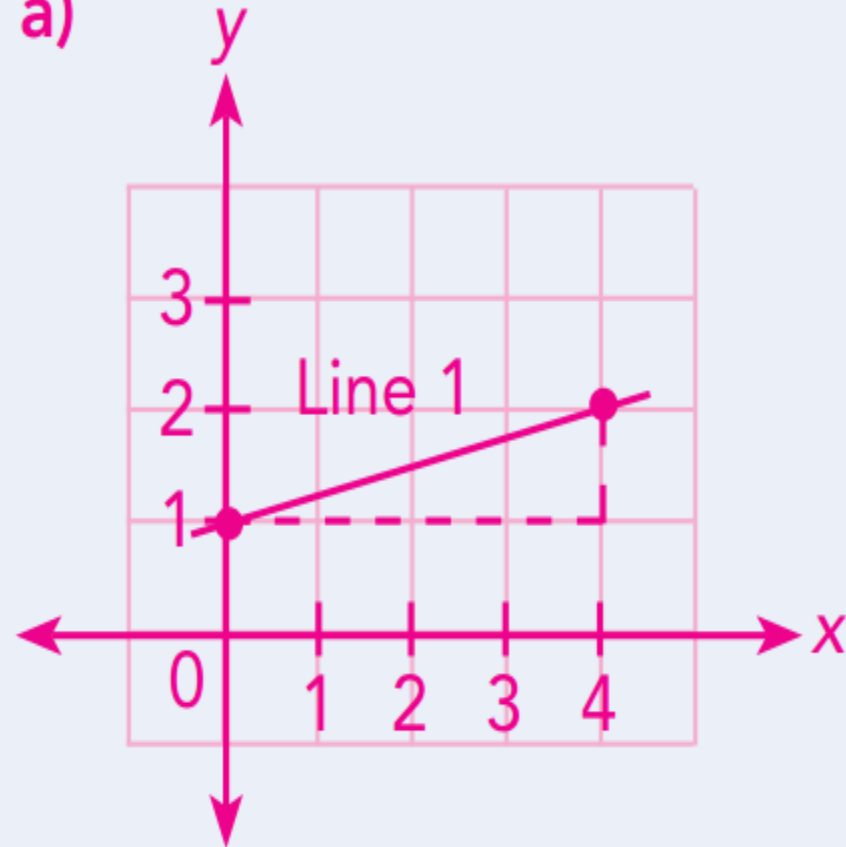
1. Choose two _____ on the line
2. Count the _____ then the _____
3. Write the slope as _____



What **SLOPE?**

describes the _____ of a line.

a)



$$\frac{\text{RISE}}{\text{RUN}} = \frac{y}{x} = \frac{1}{4}$$

Lesson 4.1 Finding and Interpreting Slope (Day 1)

Graph the line that passes through each pair of points

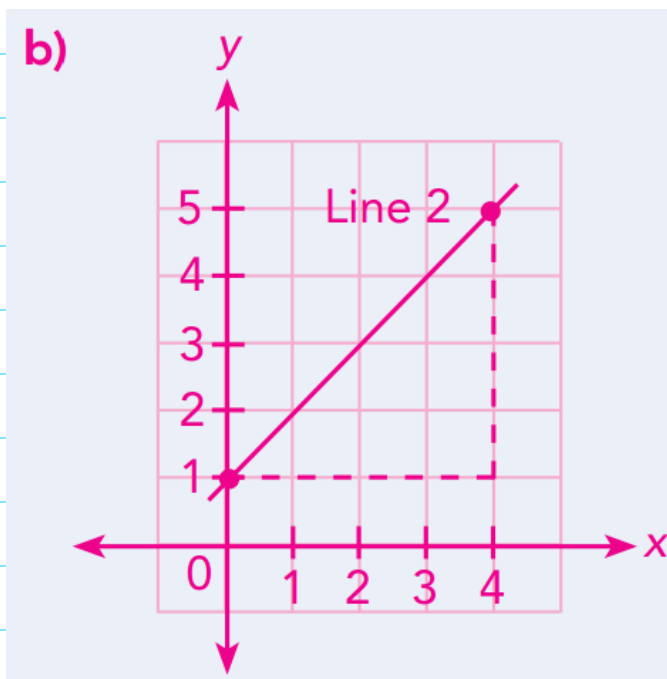
b) Line 2: (0, 1) and (4, 5)



Lesson 4.1 Finding and Interpreting Slope (Day 1)

Graph the line that passes through each pair of points

b) Line 2: (0, 1) and (4, 5)



$$\frac{\text{RISE}}{\text{RUN}} = \frac{y}{x} = 1$$

Lesson 4.1 Finding and Interpreting Slope (Day 1)

Graph the line that passes through each pair of points

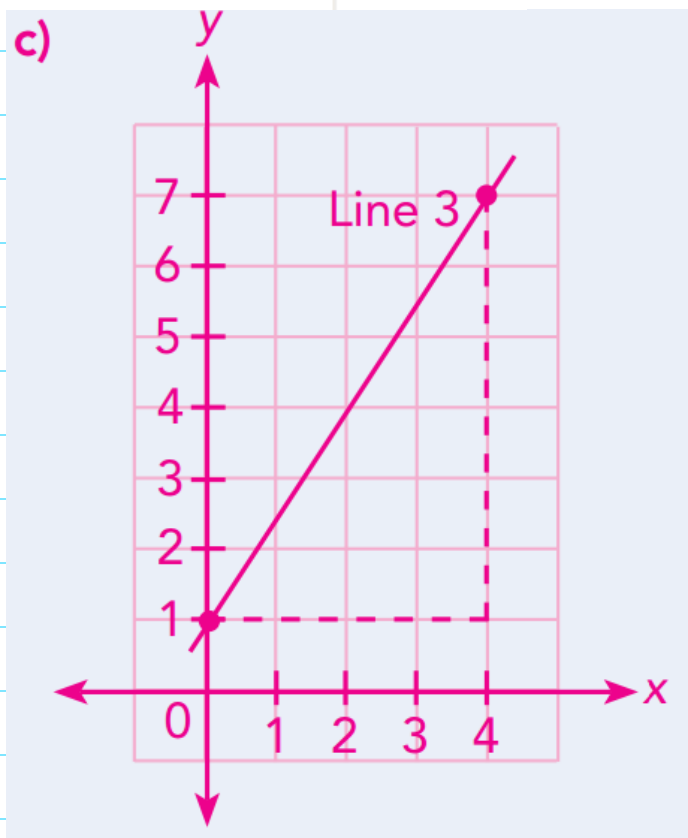
c) Line 3: (0, 1) and (4, 7)




Lesson 4.1 Finding and Interpreting Slope (Day 1)

Graph the line that passes through each pair of points

c) Line 3: (0, 1) and (4, 7)



 $\frac{\text{RISE}}{\text{RUN}} = \frac{y}{x} = 1\frac{1}{2}$

Lesson 4.1 Finding and Interpreting Slope (Day 1)

Independent Practice #1-4

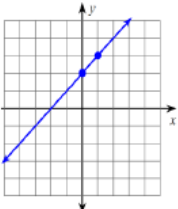
Challenge- Solve created equation/
“Pick a Snowflake
Create Word-toons

Name: _____

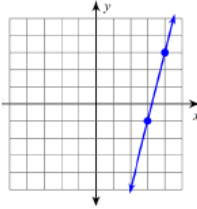
Practice 4.1

Find the slope of each line using the points indicated.

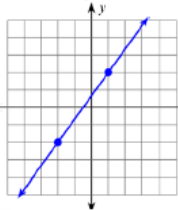
1 Find the slope of the line



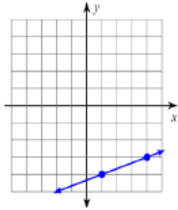
2 Find the slope of the line



3 Find the slope of the line



4 Find the slope of the line



Course 3

Name: _____

Monday Homework
Solve For Linear Equation #1-12

Solve for each unknown.

$(-1) = (-22) - y$	$9 = j - (-13)$
$33 = 9 - w$	$(-3) = (-21) - y$
$14 - w = 0$	$f + (-13) = (-19)$
$14 = y + (-9)$	$y + 18 = 12$
$2 \cdot k = (-14)$	$(-21) = 3 + b$
$(-38) = (-16) + a$	$x + (-9) = 6$

Lesson Check —#3 Write Slope of line using graph

