

SLOPE QUIZ

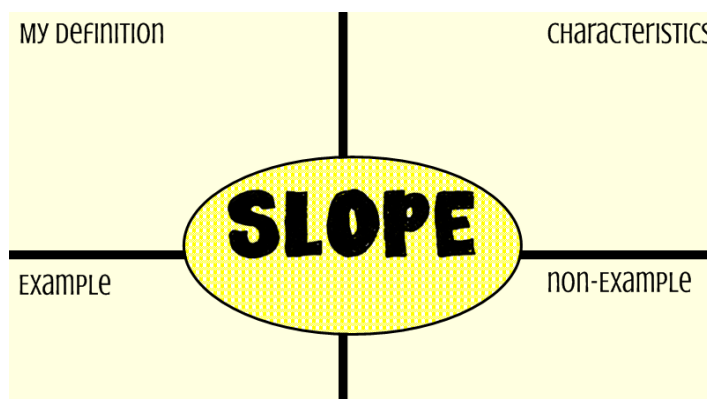
Agenda

SLOPE BOOK
COVER

hw check and
turn-in

QUIZ • good
LUCK!

get out your homework
and SLOPE book quickly



MY DEFINITION
 Comparing the change in y to change in x

RISE = $\frac{\Delta y}{\Delta x}$

4 types
 $\frac{+}{+}$ $\frac{+}{-}$ $\frac{-}{+}$ $\frac{-}{-}$

CHARACTERISTICS
 Negative
 Positive
 Zero
 Undefined

SLOPE
 Rate of Change (m)

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

EXAMPLE

x	y
-2	10
0	13
4	19
8	25

+2(-2 to 0) +3 (10 to 13)
 +4(0 to 4) +6 (13 to 19)
 +4(4 to 8) +6 (19 to 25)

$m = \frac{3}{2}$
 $\frac{6}{4}$

Pretty points

rise
 Run

non-EXAMPLE
 only for straight lines!

x	y
0	3
2	6
4	8
6	10

+2(0 to 2) +3 (3 to 6)
 +2(2 to 4) +2 (6 to 8)
 +2(4 to 6) +2 (8 to 10)

NOT LINEAR

NO SLOPE

Answers:

1. $-\frac{1}{3}$

2. Undefined

3. $\frac{1}{2}$

4. $\frac{50}{37}$

5. $\frac{16}{17}$

6. 0

7. $r = 1$

8. $r = 3$

9. -2

10. $\frac{7}{3}$

11. ~

Independent: boxes sold

Dependent: profit

$$m = \$2$$

Slope represents a profit of \$2 that was made for every box sold

12. Independent: time (days)

Dependent: height (cm)

$$m = \frac{1}{2} \text{ cm}$$

A plant grows 1 cm every 2 day

13. 13 states

Quiz time - Good Luck!

Turn in your homework when you turn in your quiz!! Don't forget!

BONUS QUESTIONS

Put your answer by your name (please make it clear what your answer is)

B1. Staci hikes at an average rate of 4 miles per hour. The function representing this situation is $m=4h$, where m represents the number of miles she hikes and h represents the number of hours she hikes. State the dependent variable.

- A. Average speed during hiking
- B. Number of miles she hikes
- C. Number of hours she hikes
- D. The shoes she wears while hiking

B2. The cost for copying a document is a function of the number of pages in the document. In this situation, what is the dependent variable?

- A The cost
- B The number of pages
- C The document
- D The function