

Guided notes 2b.1 - Slope!!!

We found the slope of the staircase by taking the _____ over the _____.

This is the most important definition of slope.

The slope of anything can be described as rise over run, or _____ over _____.

Let's put this on a coordinate plane:

The slope can be measured anywhere, so pick two points that are _____ if possible.

The rise is the vertical distance between them: _____

The run is the horizontal distance between them: _____

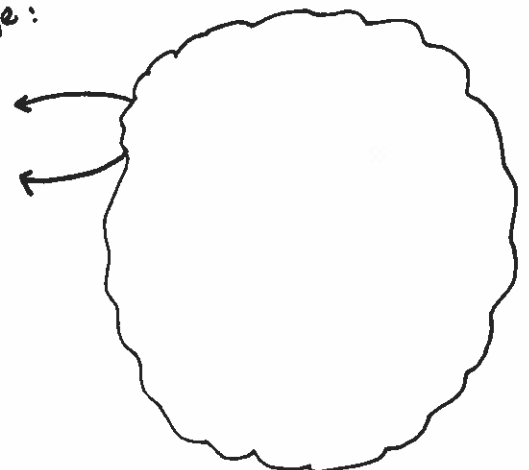
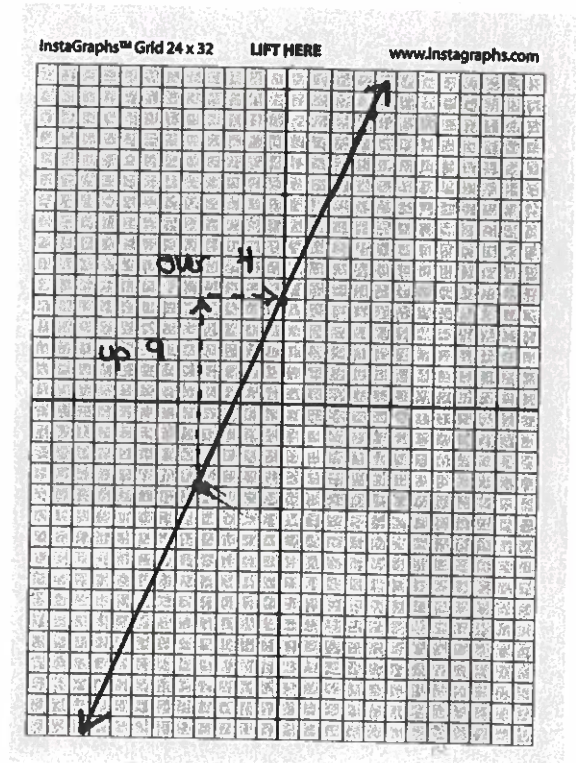
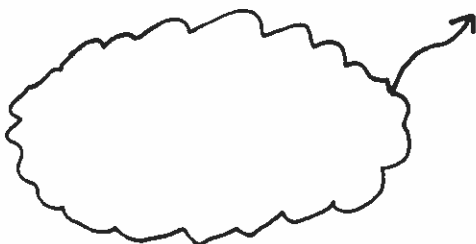
The slope is: $\frac{\text{---}}{\text{---}}$ or ---

Now graph a line that has a slope of $\frac{3}{8}$. It can start anywhere.

We only talk about the slope of a straight line, because it is _____.

Let's put this into fancy math language:

$$\text{Slope, } m, = \frac{\Delta Y}{\Delta X} = \frac{y_2 - y_1}{x_2 - x_1}$$



We always measure the run _____ to _____.

Therefore, a positive slope goes _____
and a negative slope goes _____.

What if the line is horizontal?

Then the rise is 0 everywhere, so the slope is _____.

What if the line is vertical?

Then the run is 0 everywhere, so the slope is _____.

Let's practice!

- ① Draw the line that goes through $(1, 2)$ and $(8, 6)$.

What is its slope?

- ② Draw the line that goes through $(-3, 6)$ & $(5, 6)$.

What is m ?

- ③ Draw the line through $(-5, 5)$ and $(5, -5)$.

What is its rate of change?

- ④ Give as many definitions for slope as you can.

