# Unit 5 Pre-Test

# Slope

constant rate of change

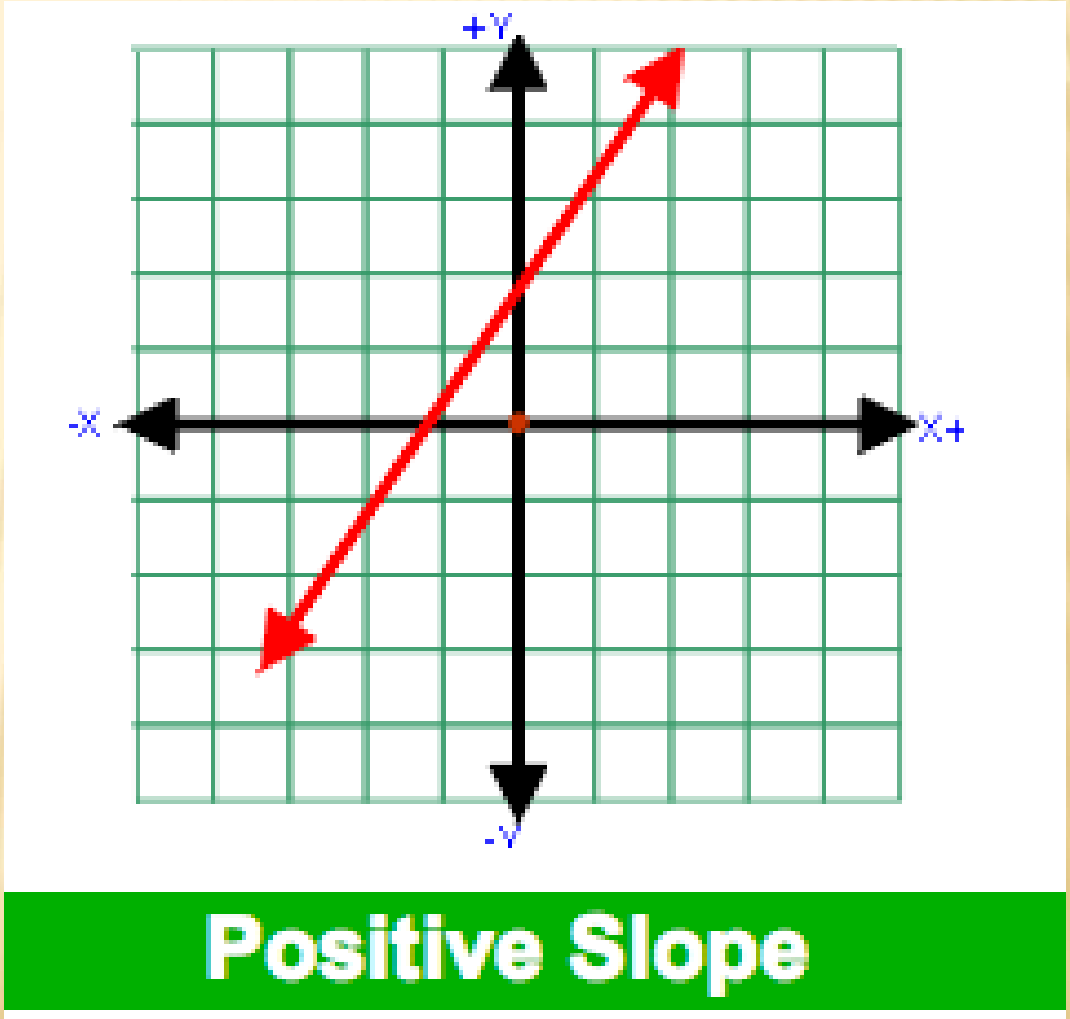
$$\text{Slope} = m = \frac{\text{Rise}}{\text{Run}}$$

# TYPES OF SLOPE

- Positive slope
- Negative slope
- Zero slope
- Undefined slope

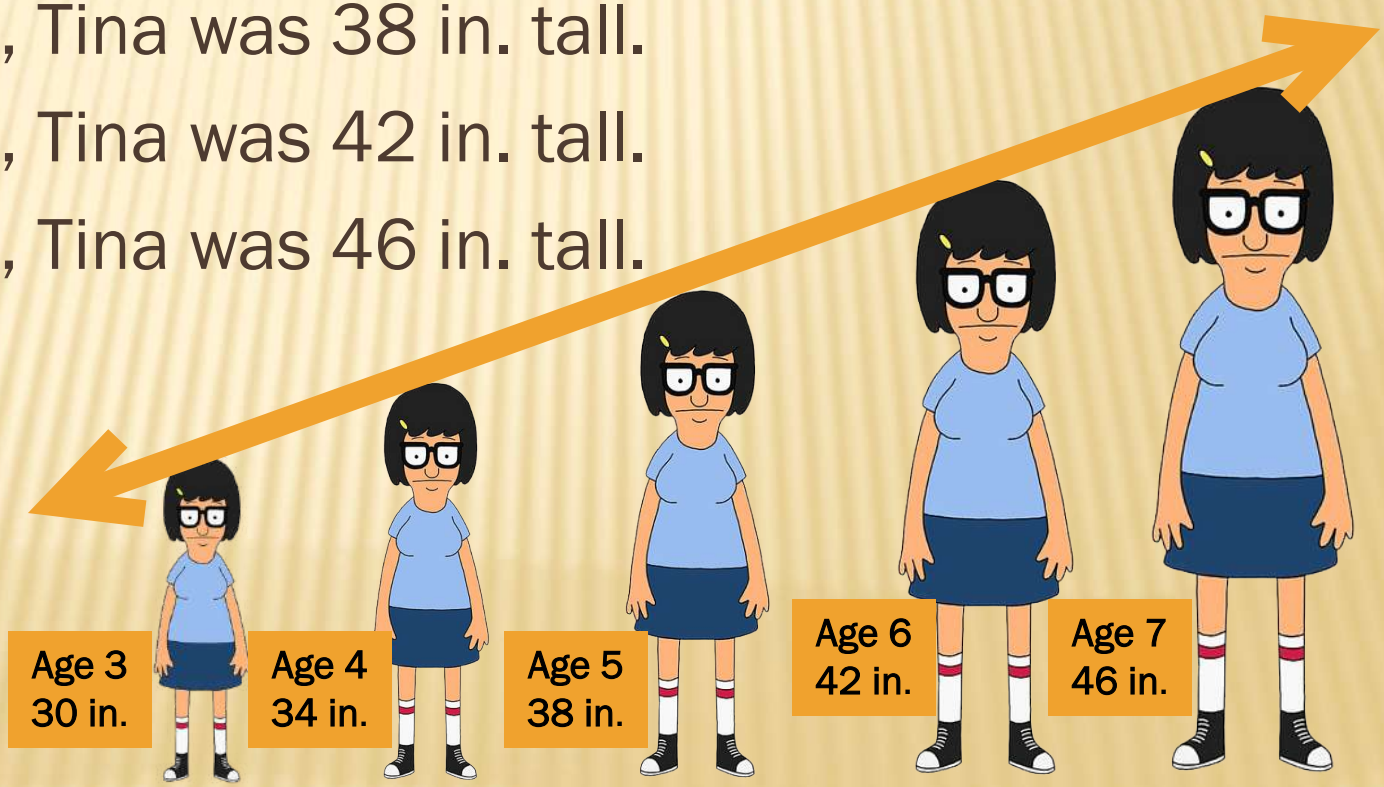
# POSITIVE SLOPE AS A GRAPH

- The line **rises** from left to right.



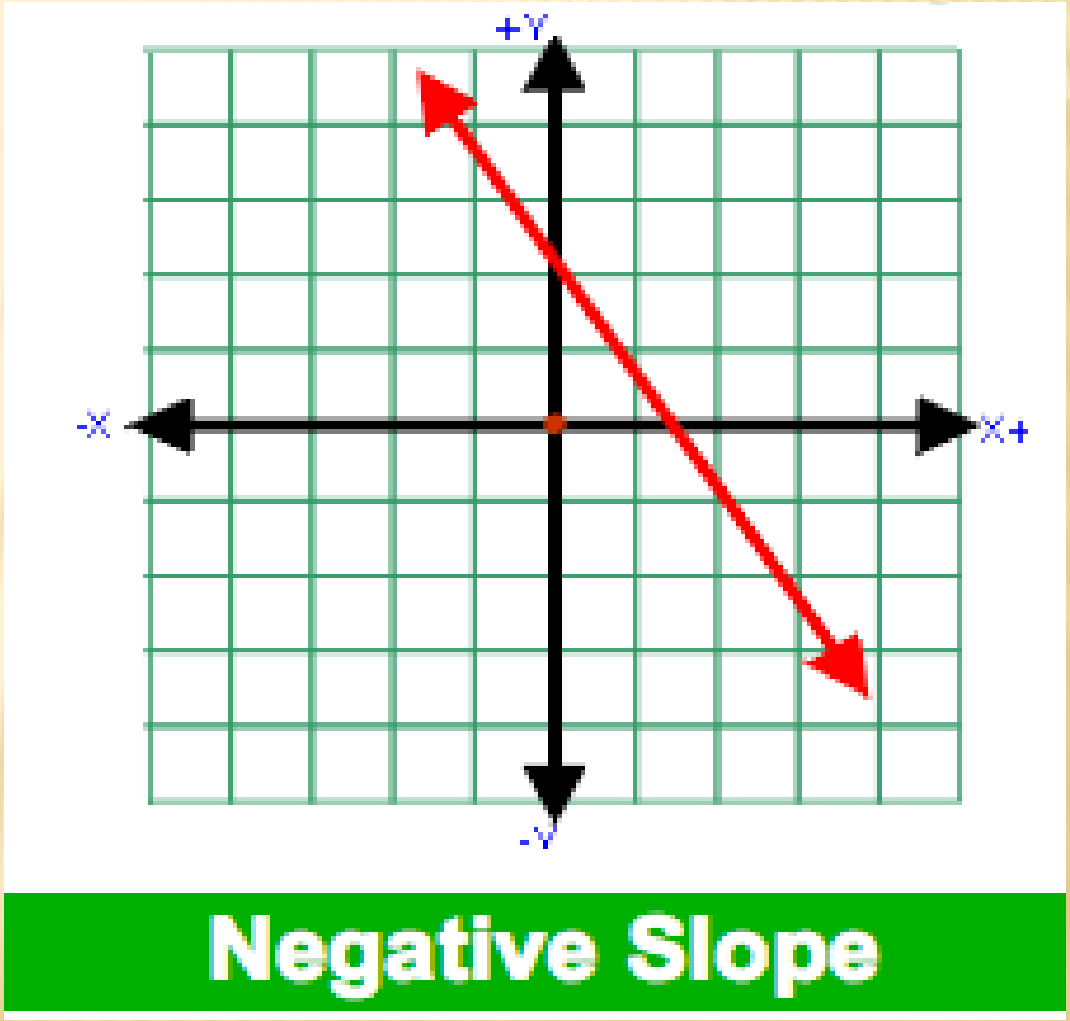
# POSITIVE SLOPE

- Each year, Tina grows 4 inches.
  - At age 3, Tina was 30 in. tall.
  - At age 4, Tina was 34 in. tall.
  - At age 5, Tina was 38 in. tall.
  - At age 6, Tina was 42 in. tall.
  - At age 7, Tina was 46 in. tall.



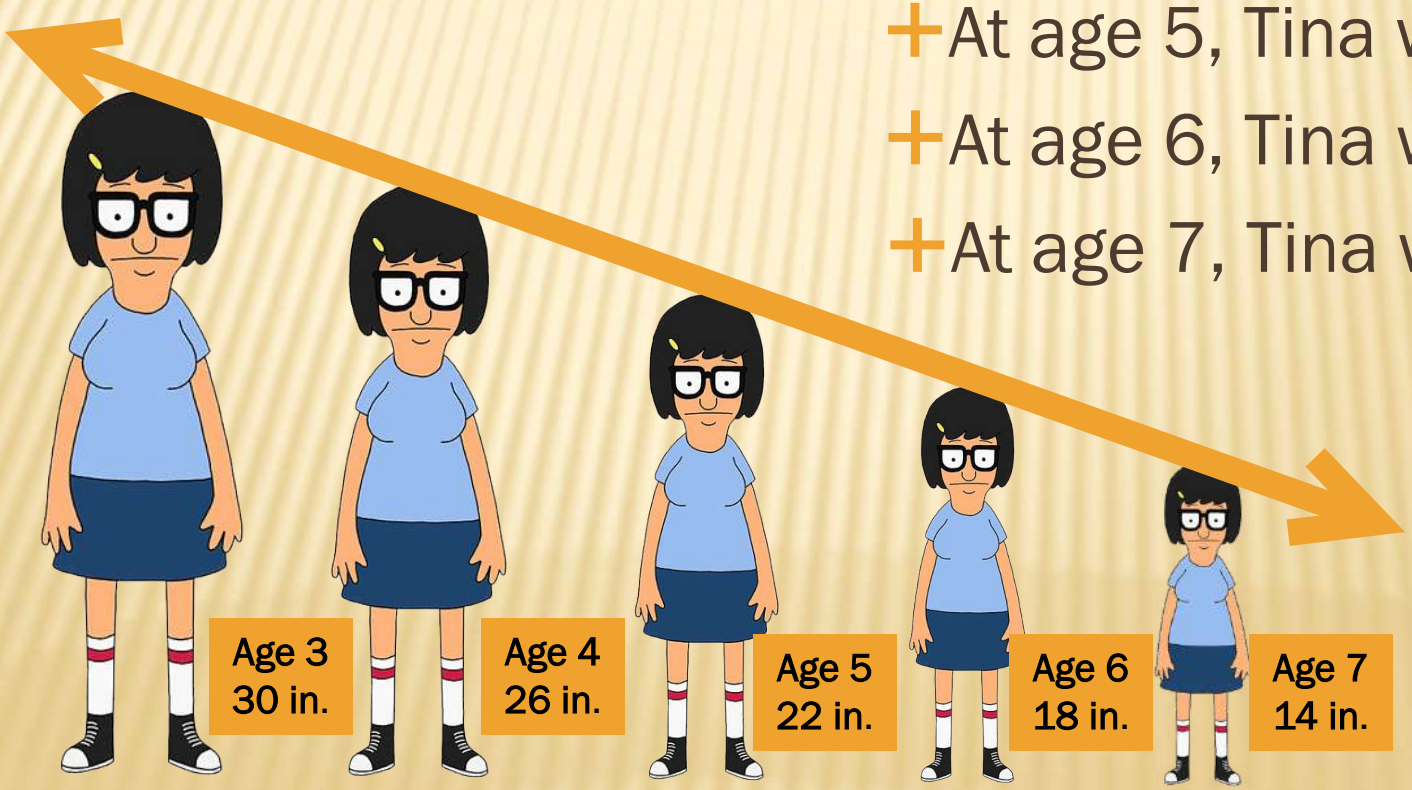
# NEGATIVE SLOPE AS A GRAPH

- The line **falls** from left to right.



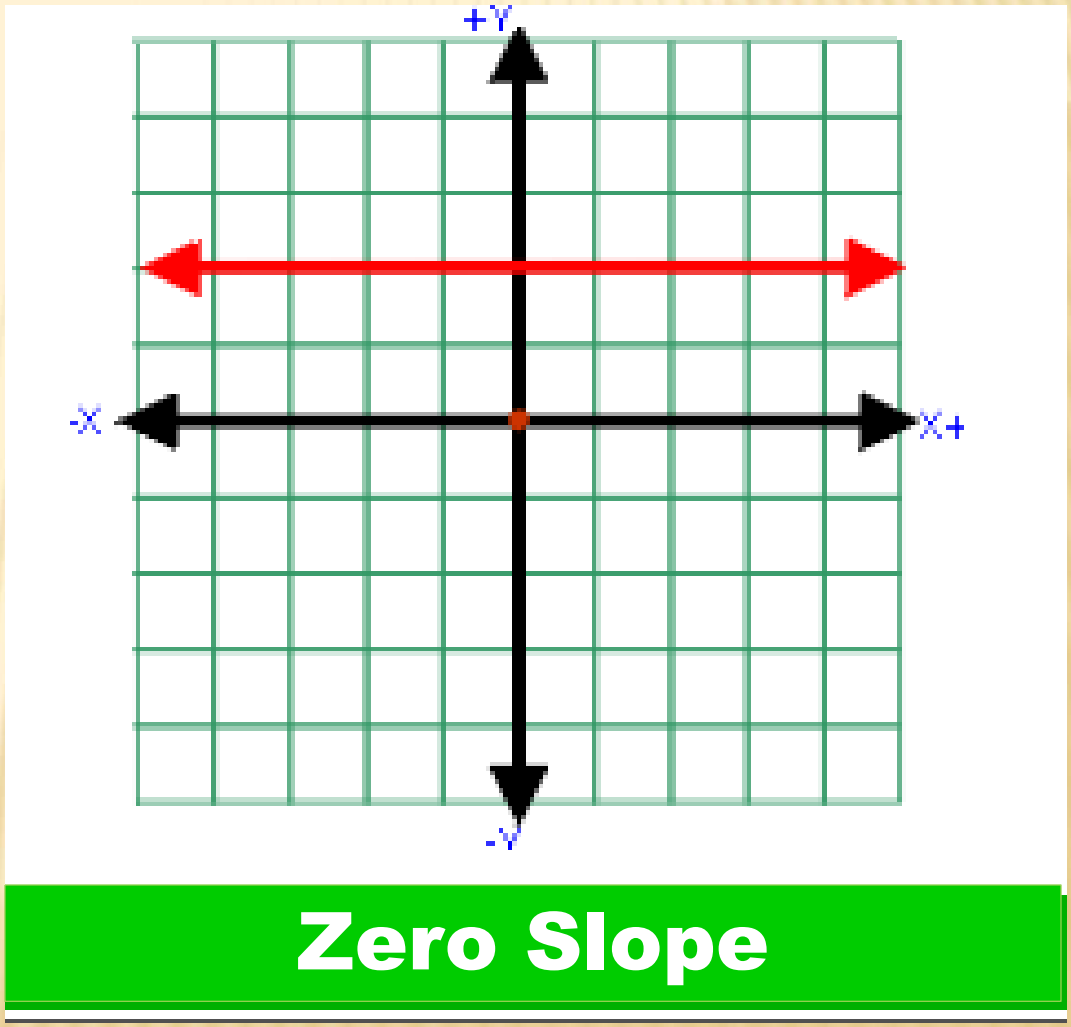
# NEGATIVE SLOPE

- Each year, Tina shrinks 4 inches.
  - At age 3, Tina was 30 in. tall.
  - At age 4, Tina was 26 in. tall.
  - At age 5, Tina was 22 in. tall.
  - At age 6, Tina was 18 in. tall.
  - At age 7, Tina was 14 in. tall.



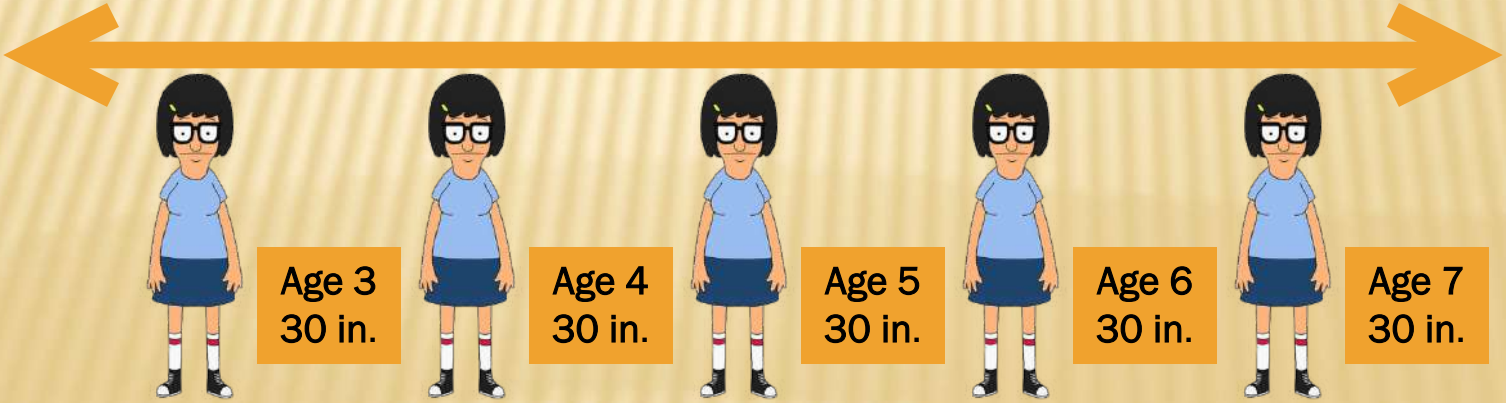
# ZERO SLOPE AS A GRAPH

- The line is horizontal.



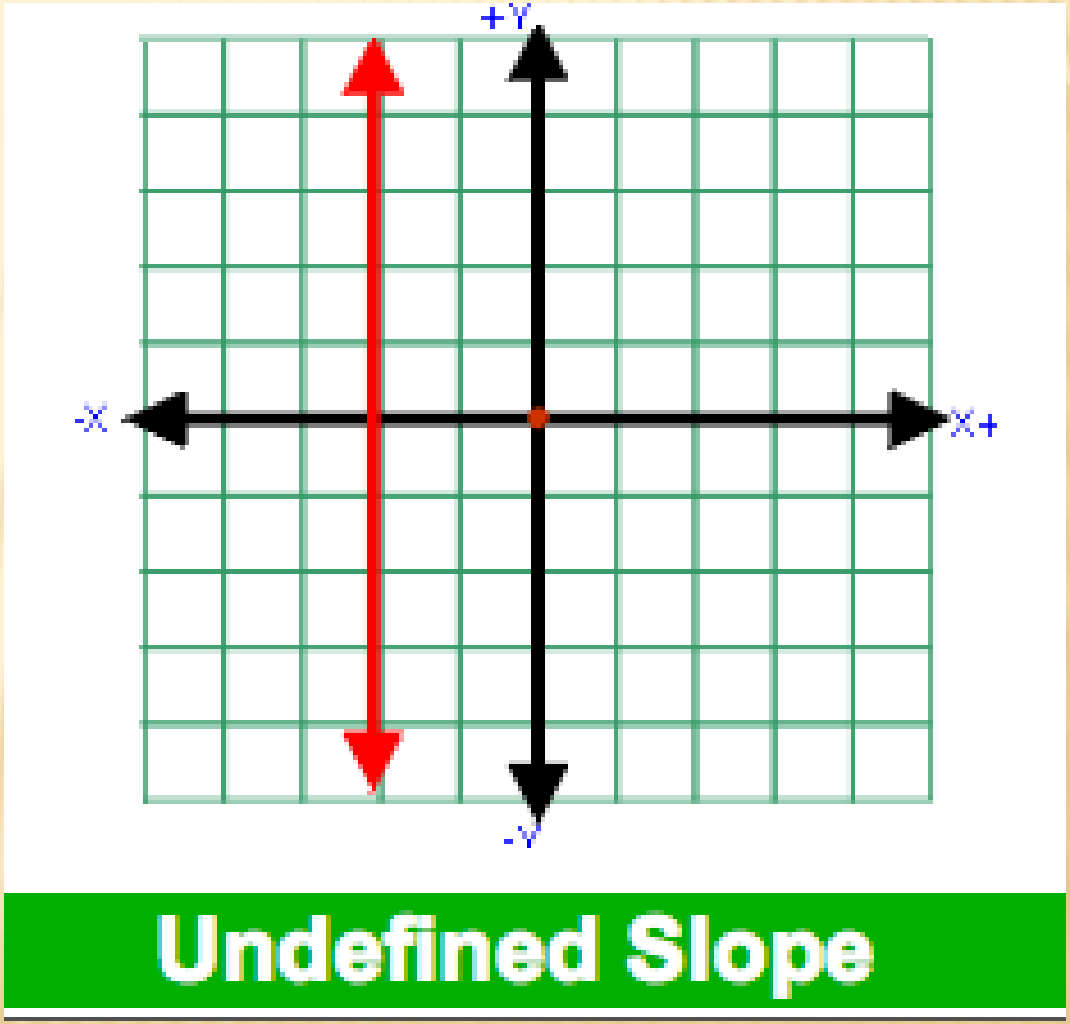
# ZERO SLOPE

- Each year, Tina does not grow at all.
  - At age 3, Tina was 30 in. tall.
  - At age 4, Tina was 30 in. tall.
  - At age 5, Tina was 30 in. tall.
  - At age 6, Tina was 30 in. tall.
  - At age 7, Tina was 30 in. tall.



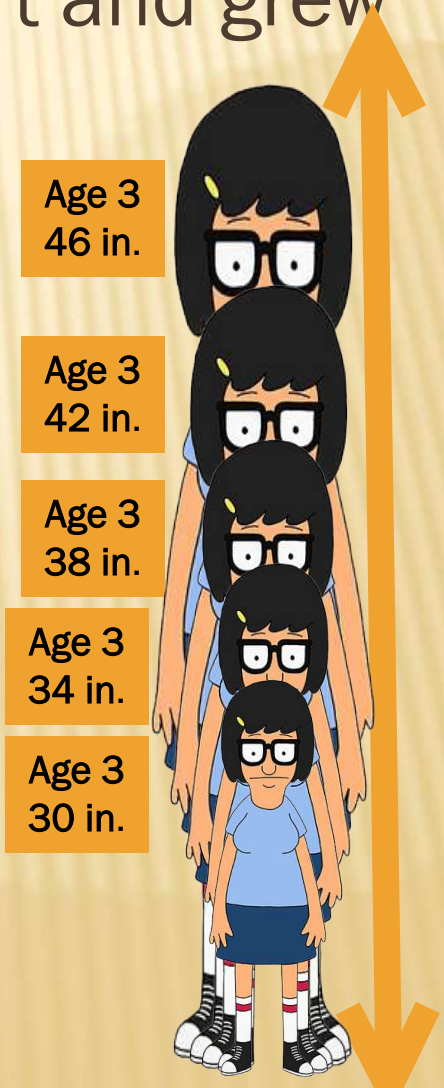
# UNDEFINED SLOPE AS A GRAPH

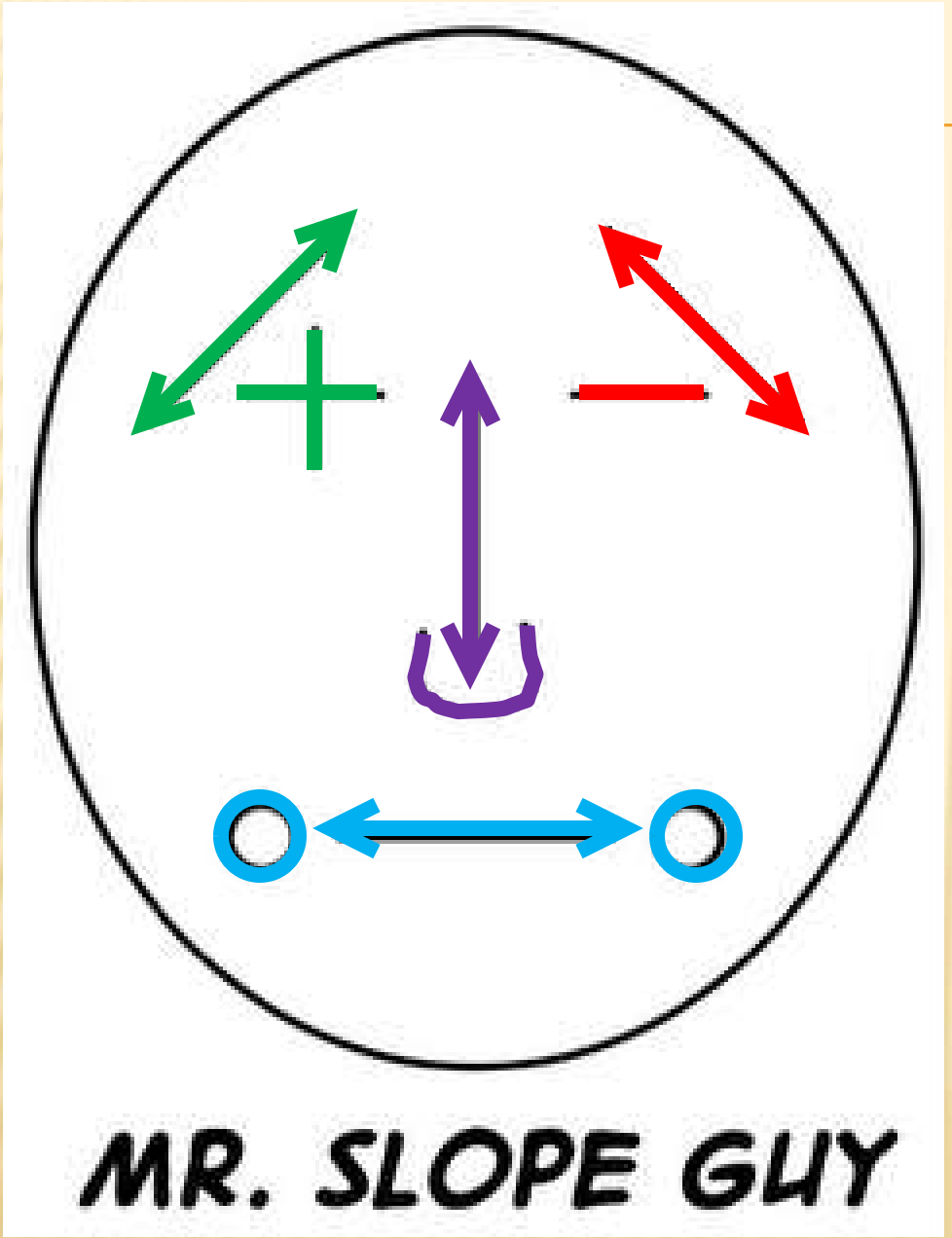
- The line is **vertical**.

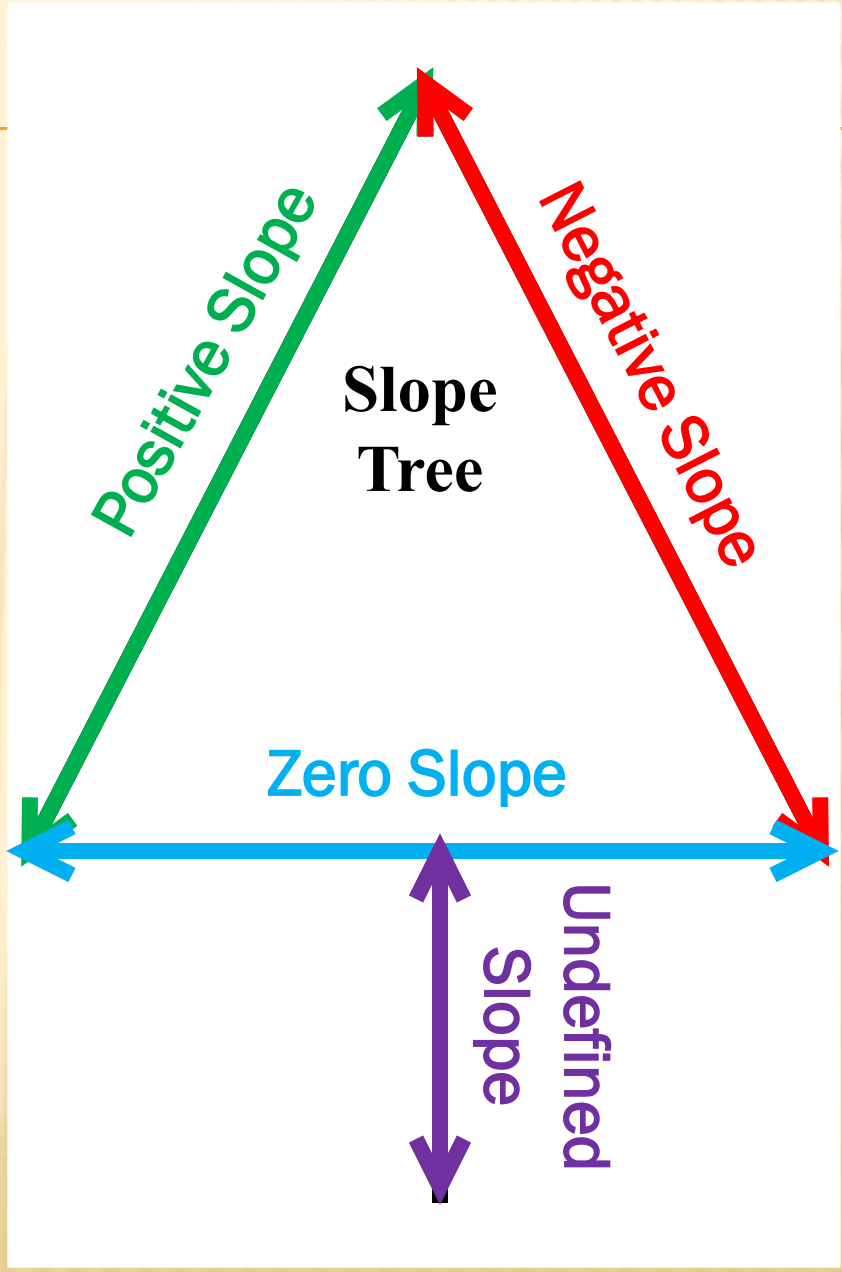


# UNDEFINED SLOPE

- At age 3, Tina had a growth spurt and grew 16 inches all at once.
  - At age 3, Tina was 30 in. tall.
  - At age 3, Tina was 34 in. tall.
  - At age 3, Tina was 38 in. tall.
  - At age 3, Tina was 42 in. tall.
  - At age 3, Tina was 46 in. tall.




MR. SLOPE GUY


Positive Slope
Negative Slope
Slope
Tree
Zero Slope
Undefined
Slope

# FOLDABLES AND NOTE TAKING TIME!!!!

# CALCULATE SLOPE GIVEN THE RISE AND RUN

- $\text{Slope} = m = \frac{\text{Rise (or fall)}}{\text{Run}}$

Find the slope given the rise and run.

1) Rise = 2
   Run = -9

2) Rise = 3
   Run = 6

3) Rise = -1
   Run = 5