

Algebra 1 3.3

Use rate of change to solve problems

*8th grade standard

Find the slope of a line*

rate of change

slope

positive slope

negative slope

zero slope

undefined slope

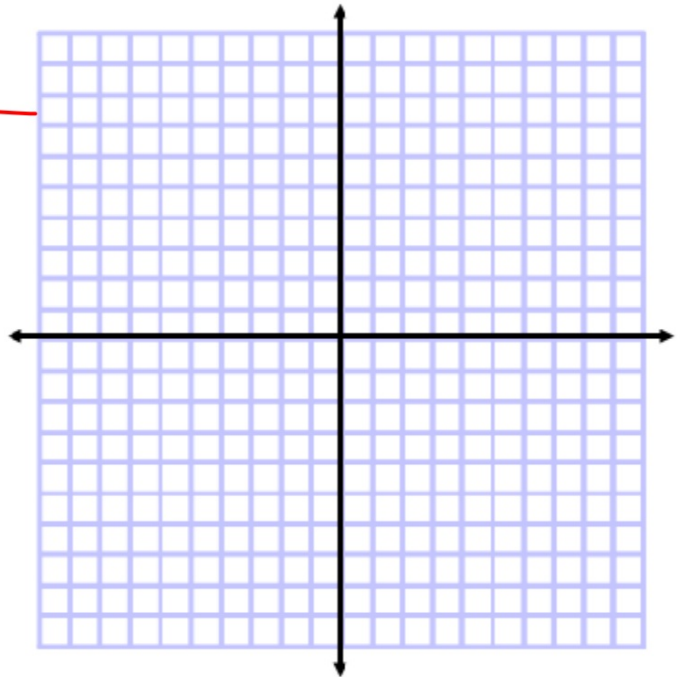
constant

linear

whiteboards

slope song

Vert
horiz



Activity: Connect 4 and/or Bingo (if time)

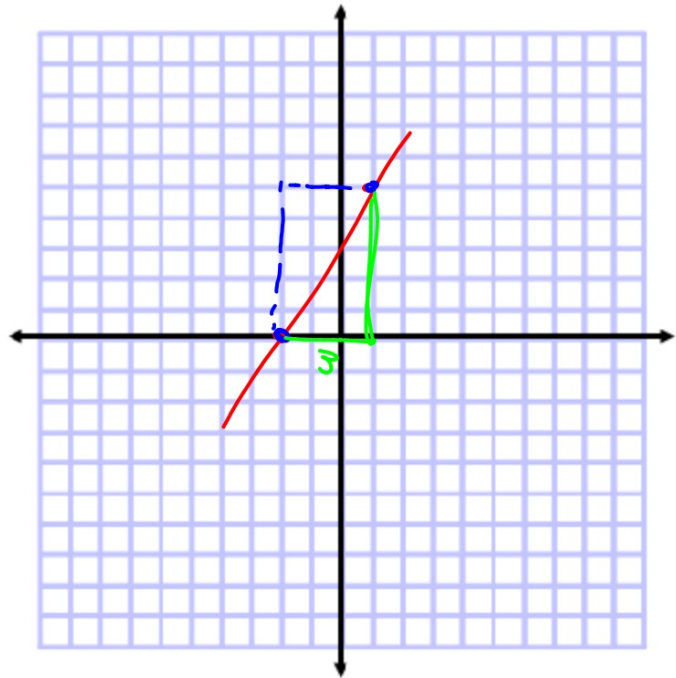
Whiteboards

Example 4 Positive, Negative and Zero Slope

Find the slope of a line that passes through each pair

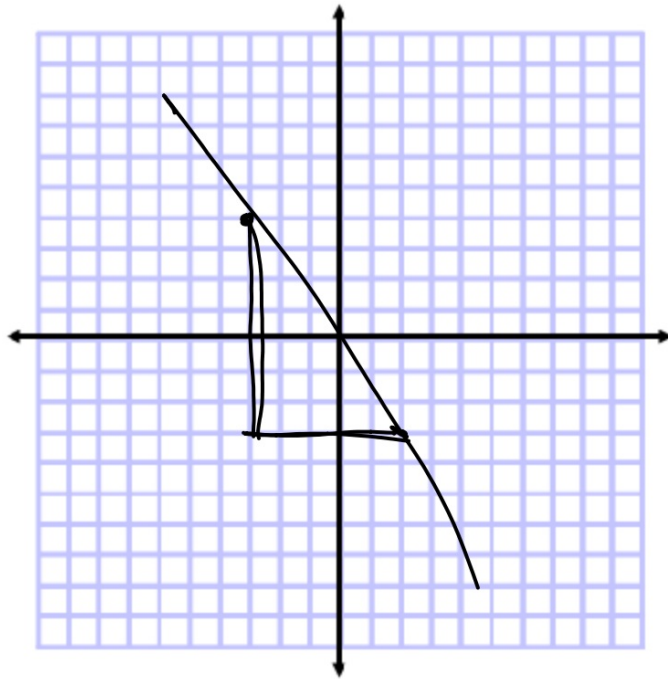
a. $(-2, 0)$ and $(1, 5)$

$$m = \frac{5}{3} \quad \frac{5}{3}$$



b. $(-3, 4)$ and $(2, -3)$

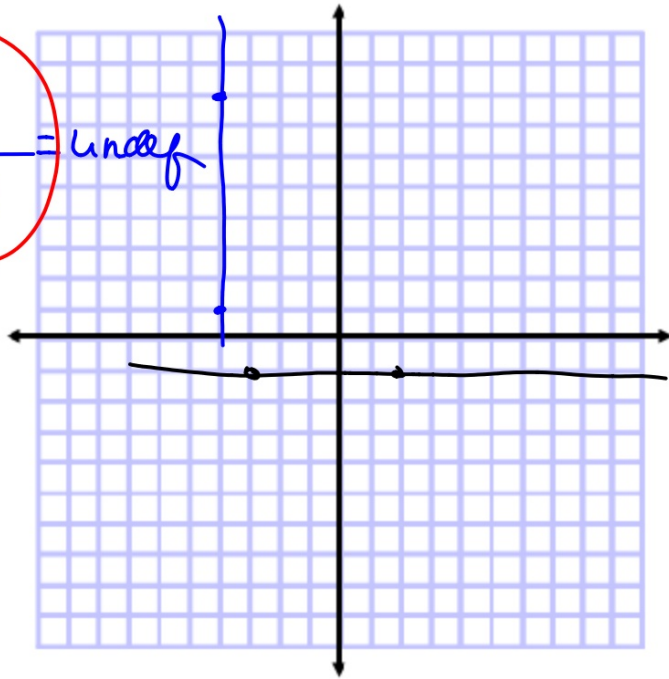
$$\frac{-7}{5}$$



c. (-3, -1) and (2, -1)

$$0 = \frac{p}{s}$$

$$\frac{7}{0} = \text{undef}$$



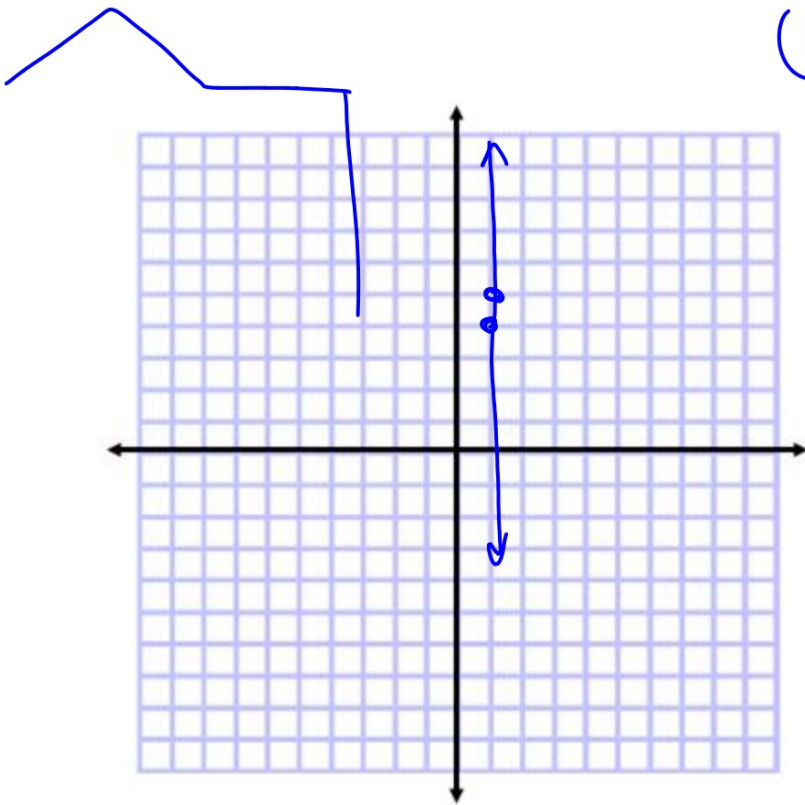
Guided Practice

Find the slope of the line that passes through each pair of points.

4A. (3, 6), (4, 8)

4B. (-4, -2), (0, -2)

4C. (-4, 2), (-2, 10)

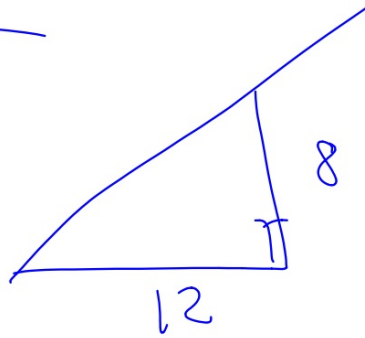
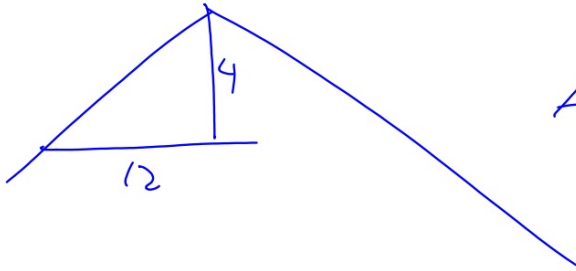


(1, 4) (1, 5)
(?, 5)

undefined

rate of change

pitch $\frac{\text{rise}}{12}$



$$\frac{8}{12} \div 4 = \frac{2}{3}$$

2017 5,000,000

2024 8,000,000

$$\frac{3,000,000}{7} = \frac{428,571}{1} \frac{\text{Ford}}{\text{Year}}$$

2021 750

2024 620 $\frac{-130}{3}$

3
fewer
approx -43 per yr.