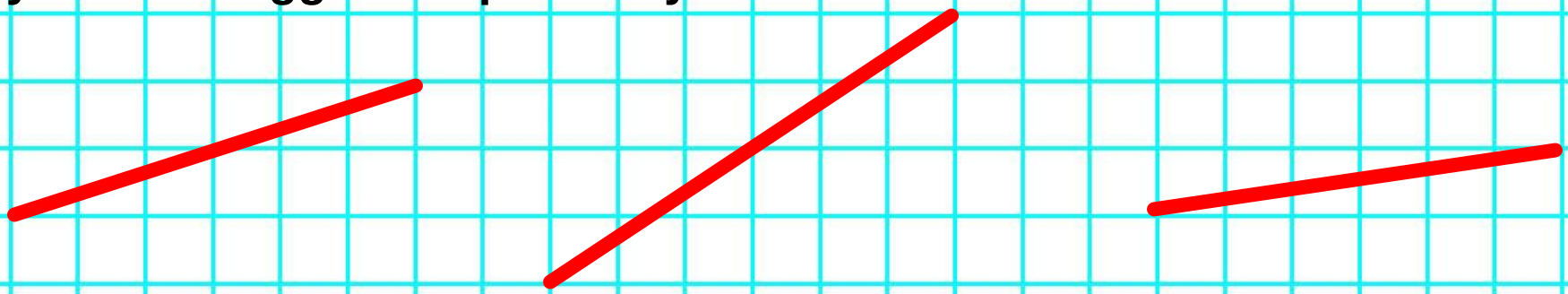
4.2

Activity

Introduction of Slope

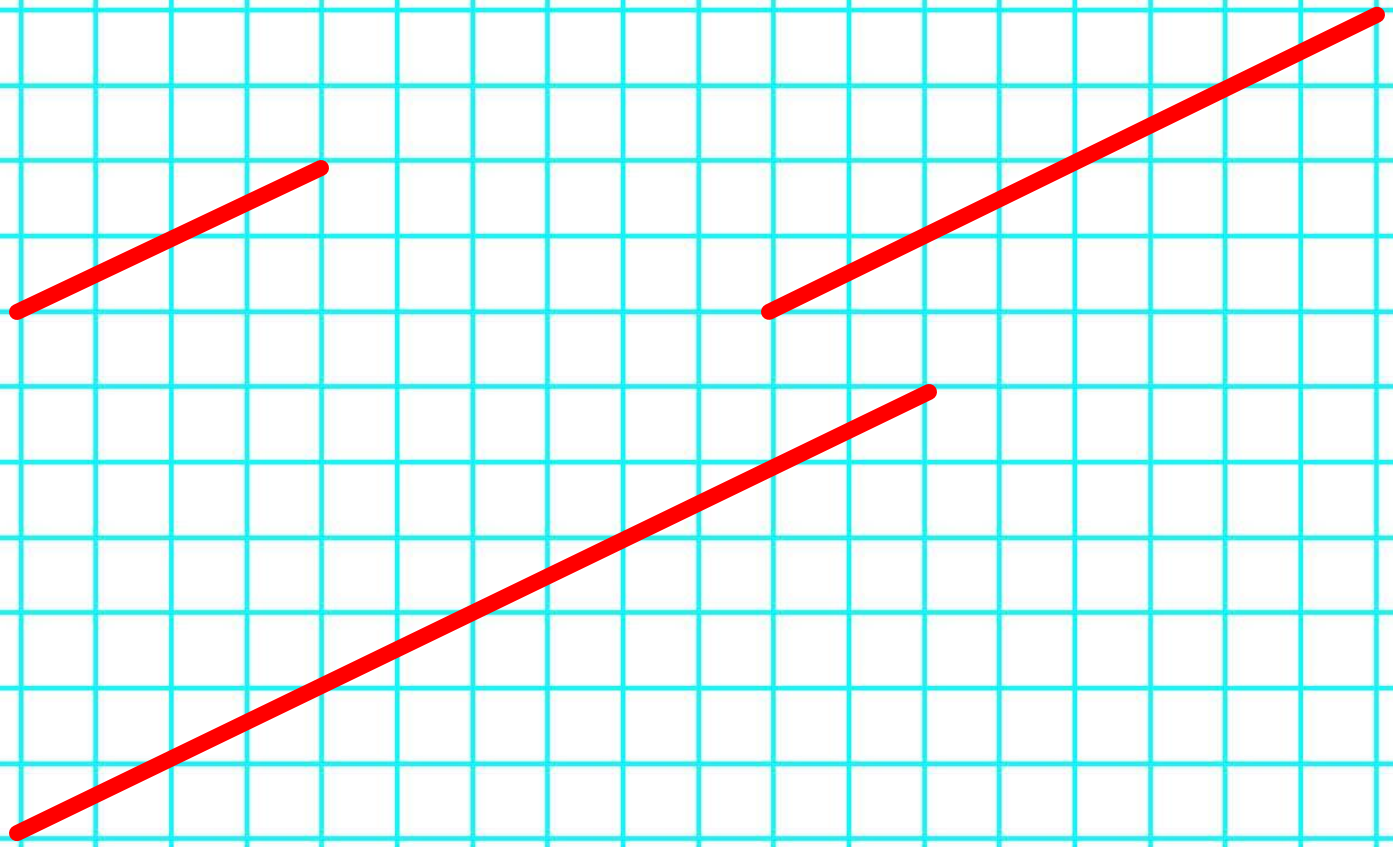
Look at the following line segments. Which of them would you say has the biggest slope? Why?



Without referring to actual length of the line segments, what would say is the same about them? Different? (Clue: Use the grid lines to help you describe this.)

Introduction of Slope

Which of these segment, if any, has the biggest slope? Why?



Slope

Slope is the ratio of the vertical change and the horizontal change.

Another name of slope is the _____ _____ _____

Slope = $\frac{\text{vertical change}}{\text{horizontal change}}$

Slope = $\frac{\text{rise}}{\text{run}}$

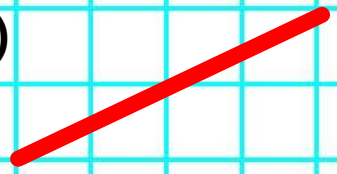
Slope = $\frac{\text{change in } y}{\text{change in } x}$

Practice

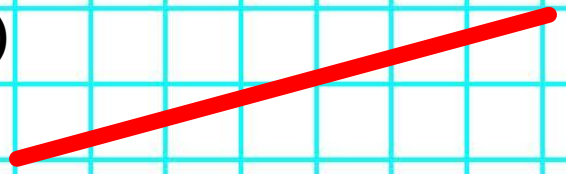
$$\text{Slope} = \frac{\text{Change of } y}{\text{Change of } x}$$

Find the ratio of slope of the following in simplest form.

1)

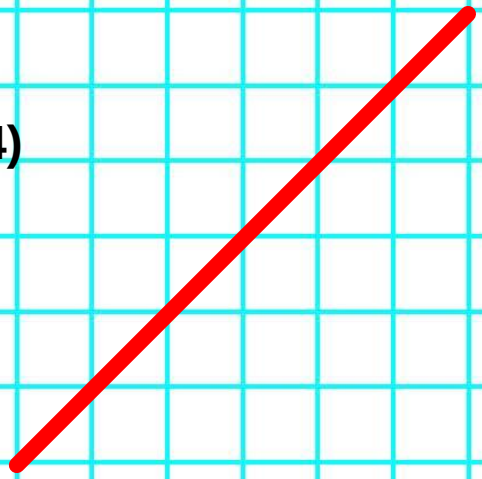


2)

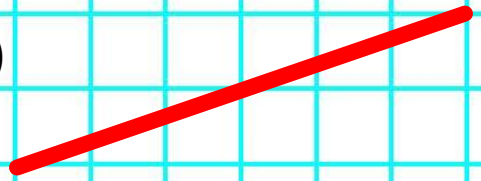


3)

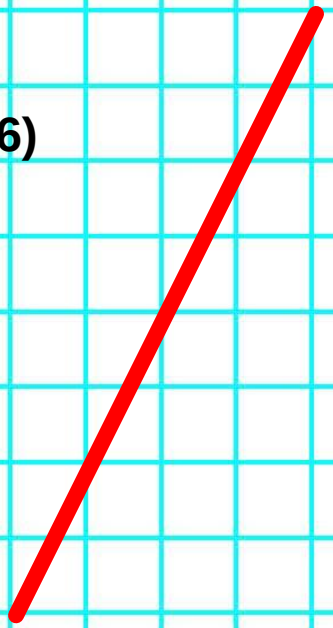
4)



5)



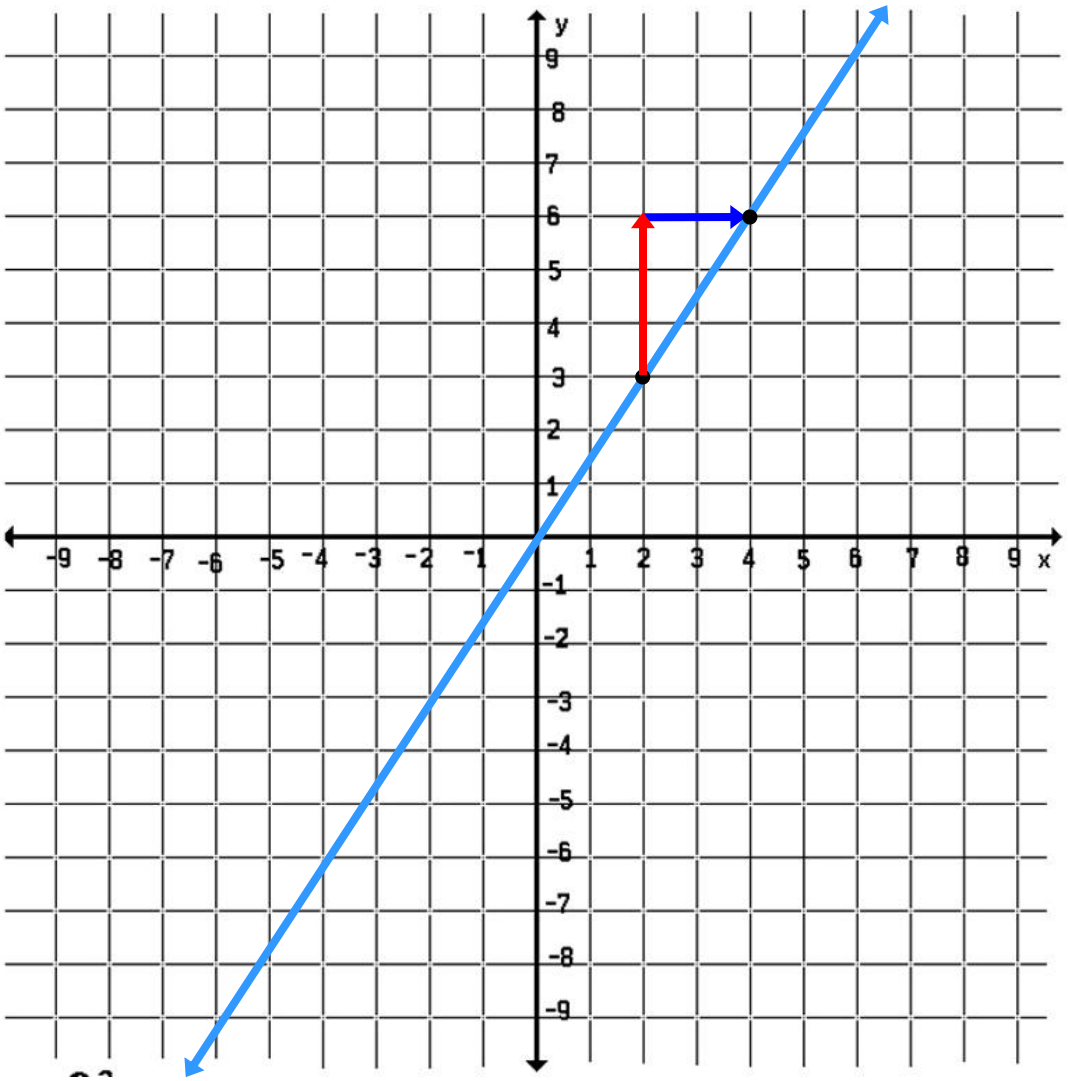
6)



Find the Slope of a Line

Find the ratio of the change in y (vertical change) to the change in x (horizontal change).

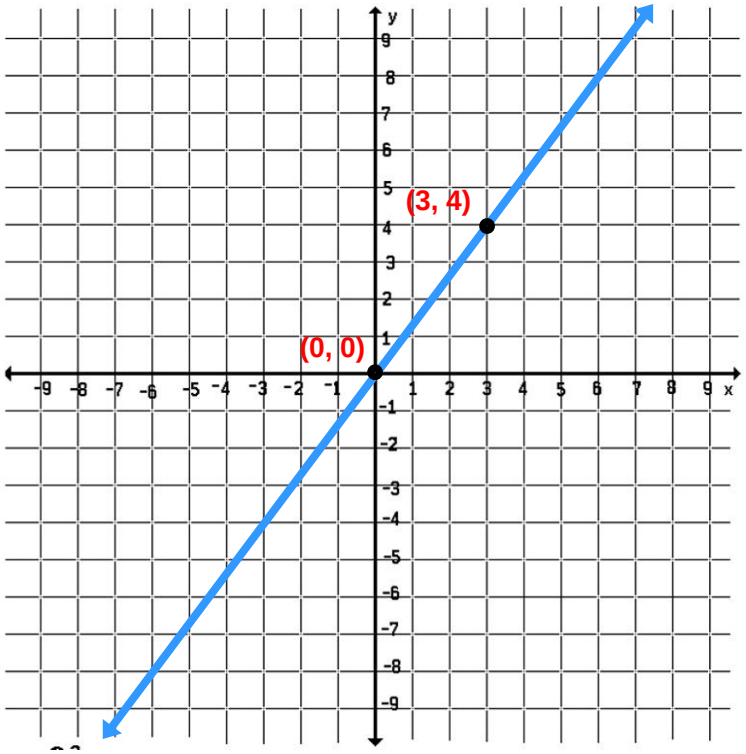
$$\text{Slope} = \frac{\text{Change in y}}{\text{Change in x}}$$



Finding Slopes

Find the slope.

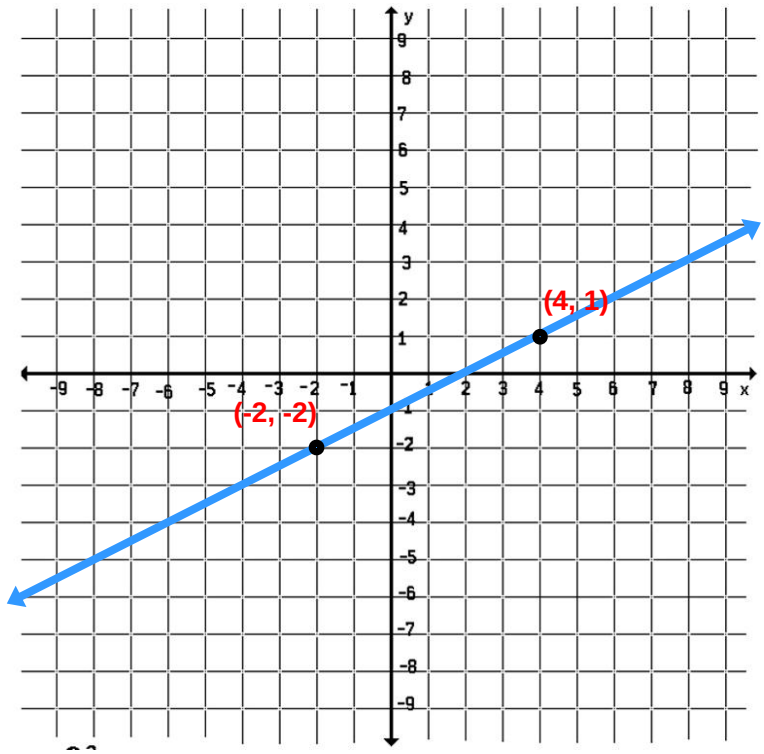
1.



Slope = $\frac{\text{Change in y}}{\text{Change in x}}$

Slope =

2.



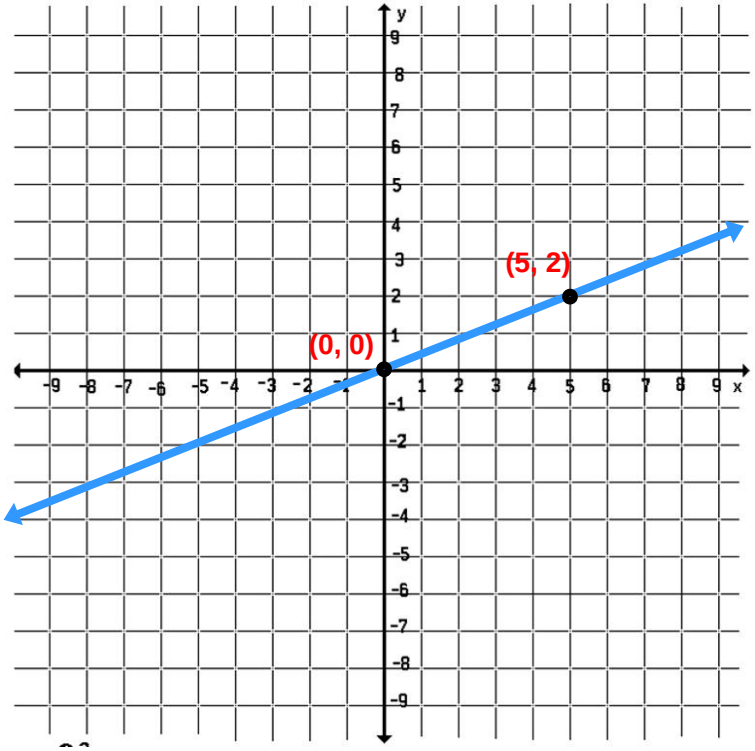
Slope = $\frac{\text{Change in y}}{\text{Change in x}}$

Slope =

Finding Slopes

Find the slope.

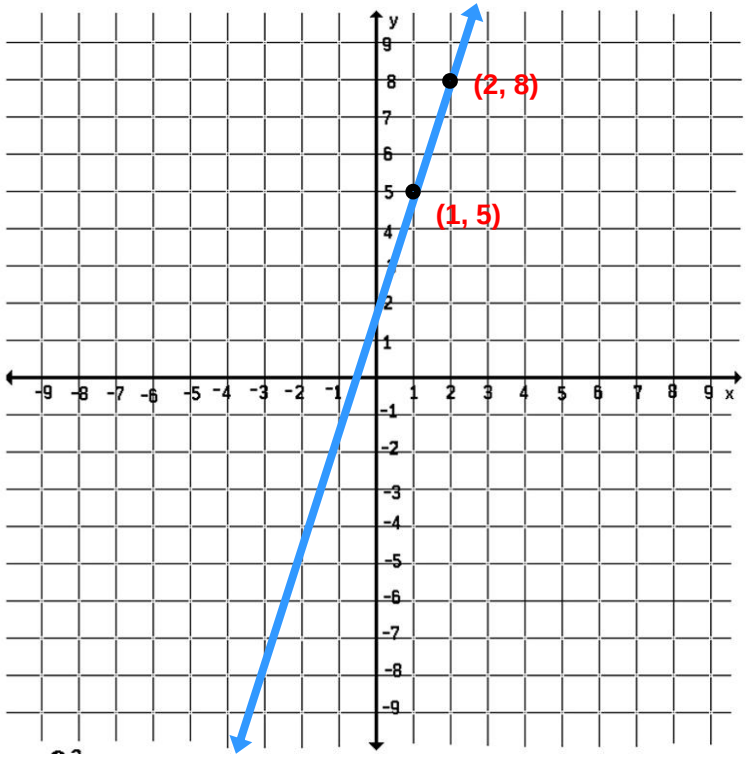
3.



Slope = $\frac{\text{Change in y}}{\text{Change in x}}$

Slope =

4.



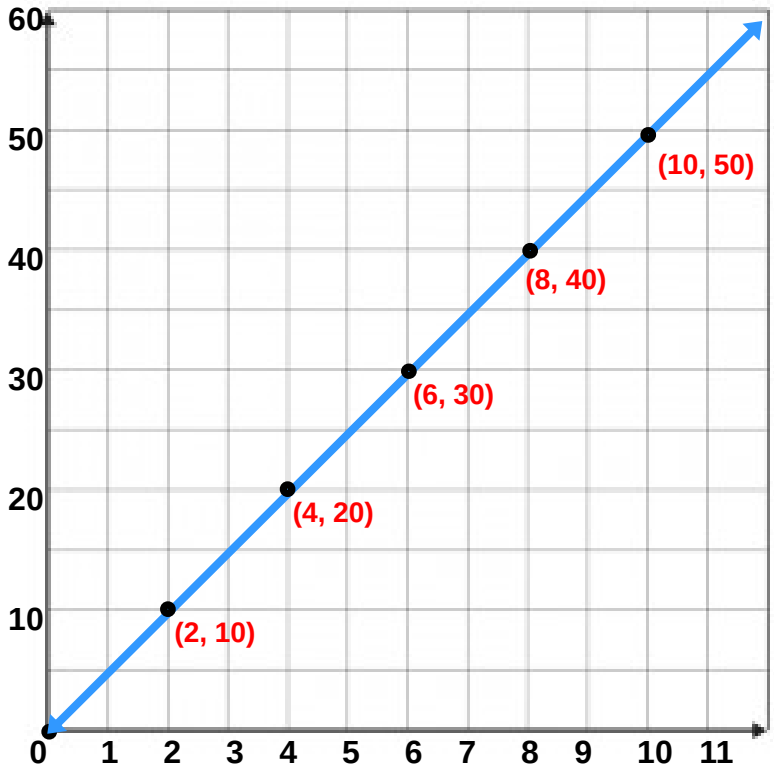
Slope = $\frac{\text{Change in y}}{\text{Change in x}}$

Slope =

Interpreting a Slope

Hours, x	0	2	4	6	8	10
Earnings, y (dollars)	0	10	20	30	40	50

a) Graph the data. Draw a line through the points.

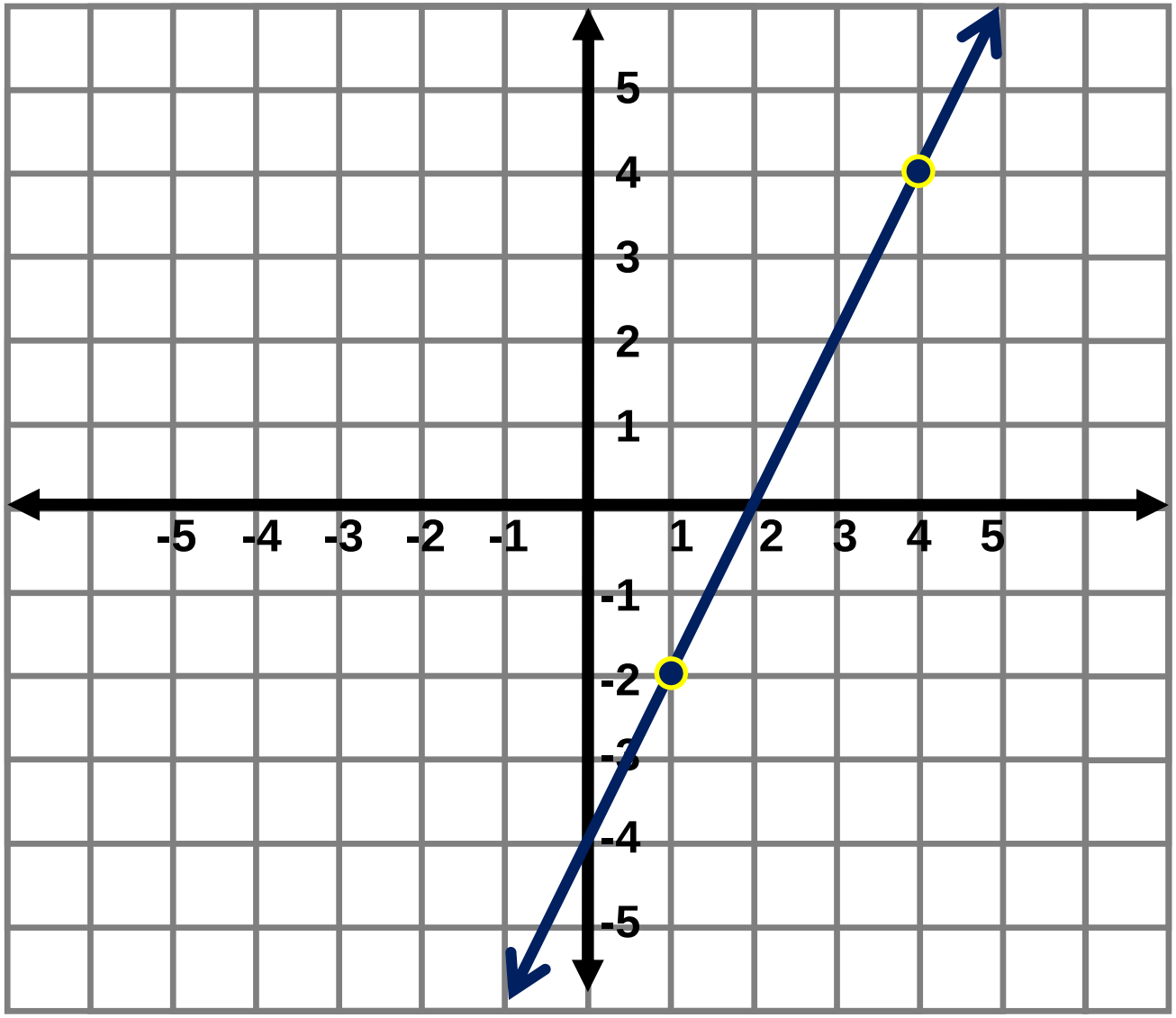


b) Choose any two points to find the slope of the line.

$$\text{Slope} = \frac{\text{Change in y}}{\text{Change in x}}$$

Slope =

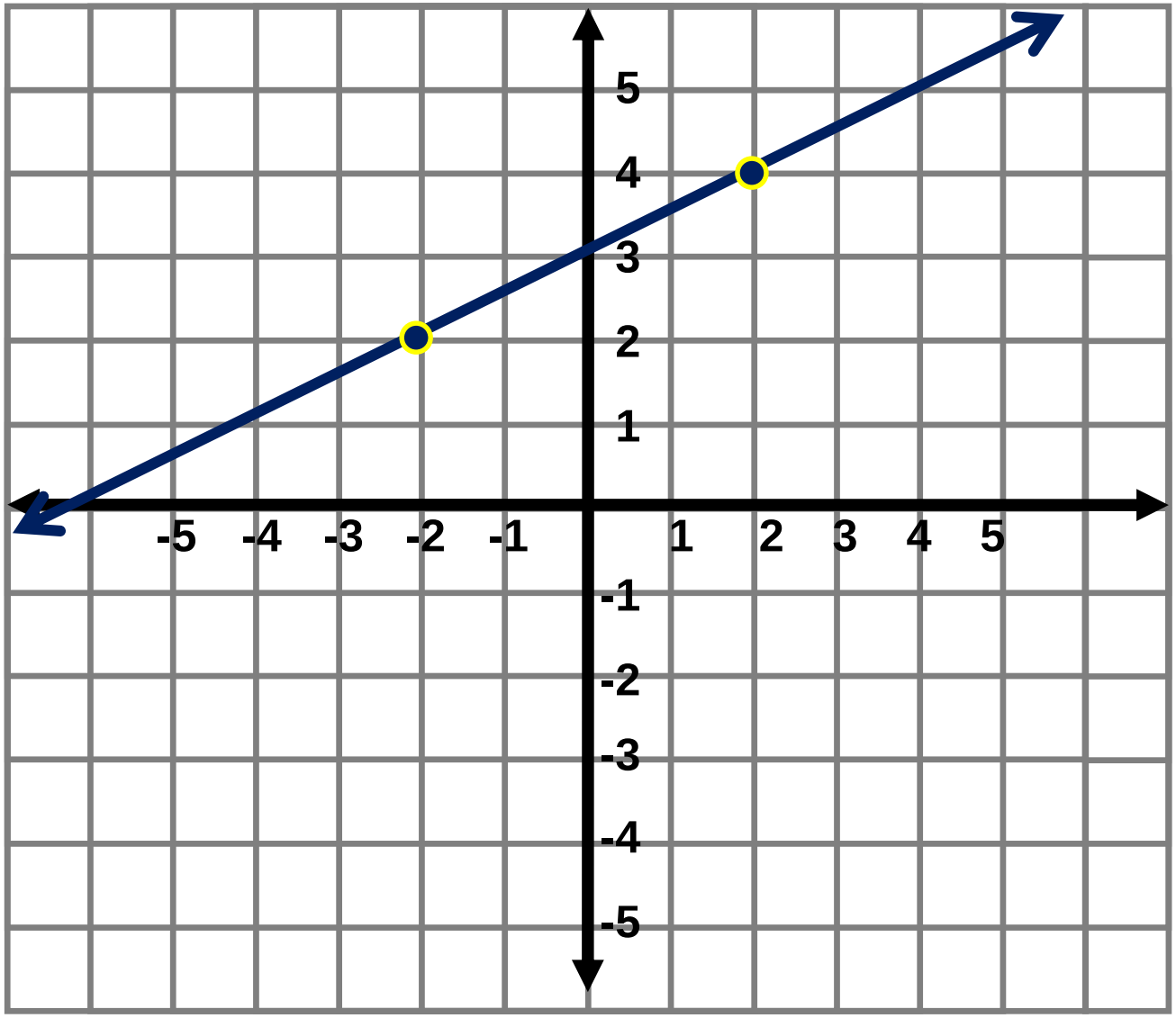
SLOPE & Y-INTERCEPT



Slope = _____

y-int = _____

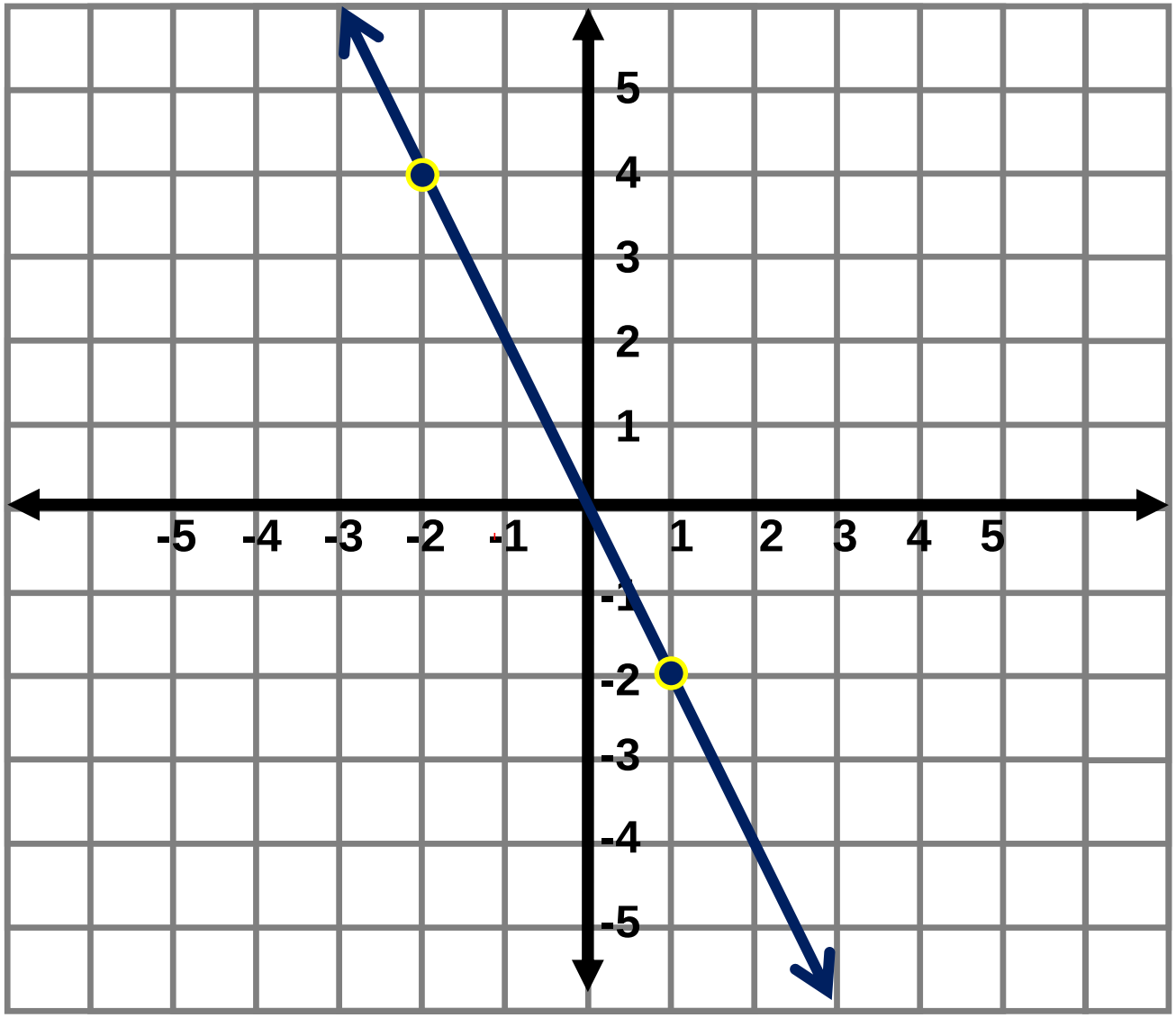
SLOPE & Y-INTERCEPT



Slope = _____

y-int = _____

SLOPE & Y-INTERCEPT



Slope = _____

y-int = _____