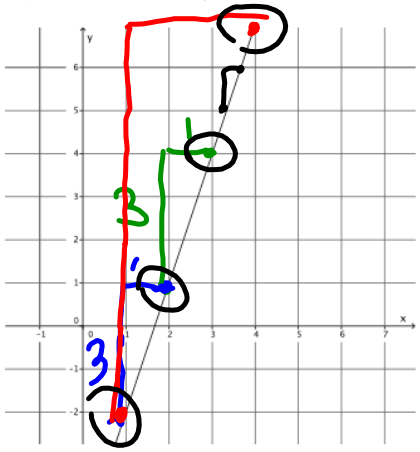
Lesson 16: The Computation of the Slope of a Non-Vertical Line

Classwork

Example 1

Using what you learned in the last lesson, determine the slope of the line with the following graph.

SLOPE
$m = \frac{3}{1} = 3$

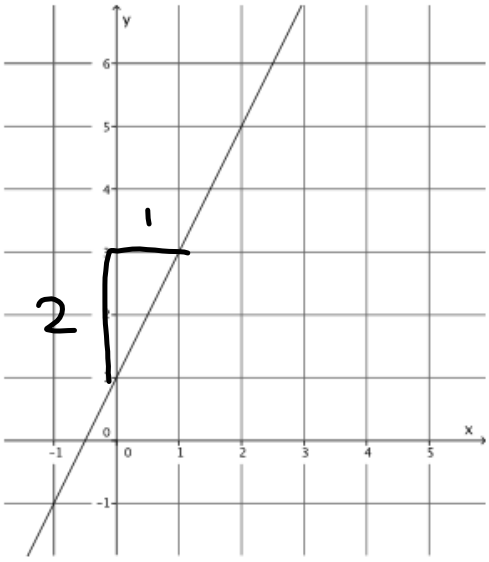


SLOPE
$m = \frac{3}{1} = 3$

SLOPE
$m = \frac{9}{3} = 3$

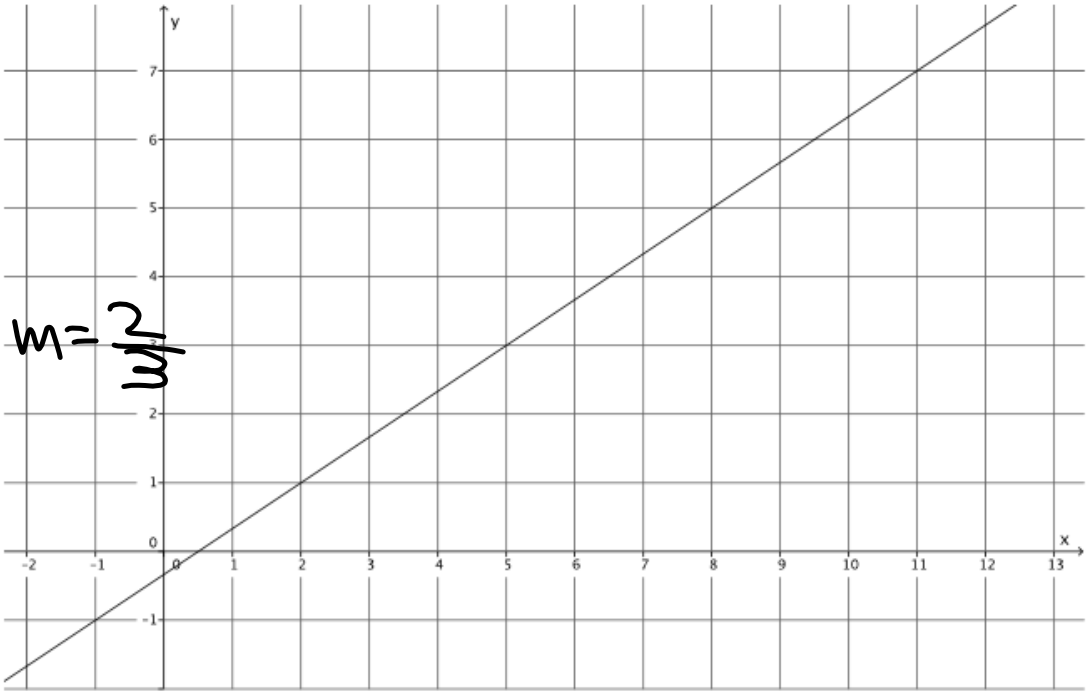
Example 2

Using what you learned in the last lesson, determine the slope of the line with the following graph.



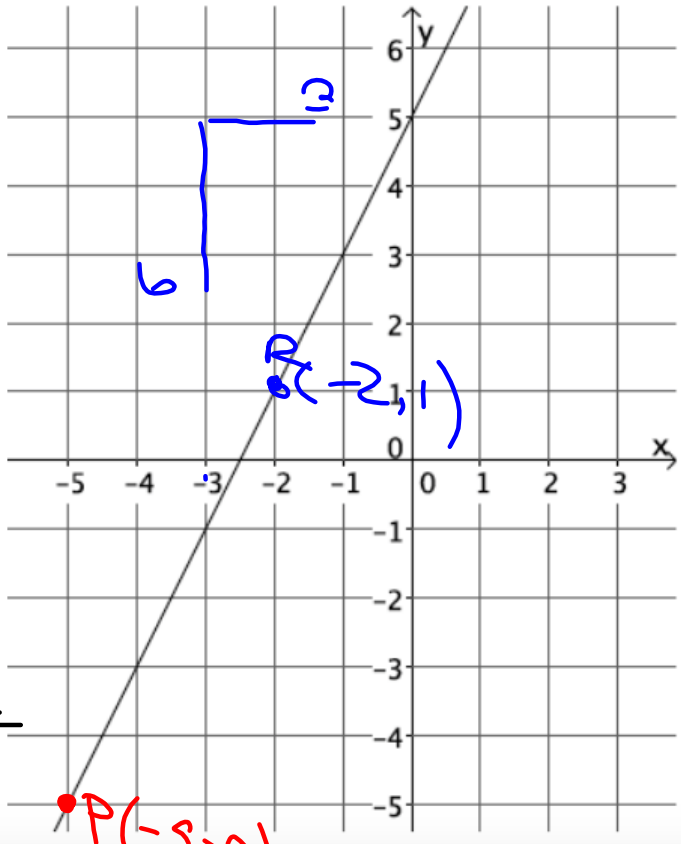
Example 3

What is different about this line compared to the last two examples?



Exercise

Let's investigate concretely to see if the claim that we can find slope between any two points is true.



$m = \frac{P_2 - r_2}{P_1 - r_1}$

a. Select any two points on the line to label as P and R.

b. Identify the coordinates of points P and R.

$P(-3,-1)$ $R(0,5)$

P_1, P_2 r_1, r_2

c. Find the slope of the line using as many different points as you can. Identify your points, and show your work below.

$m = \frac{P_2 - r_2}{P_1 - r_1} = \frac{-1-5}{-3-0} = \frac{-6}{-3} = 2$

$P(-5,-5)$ $R(-2,1)$

P_1, P_2 r_1, r_2

$m = \frac{P_2 - r_2}{P_1 - r_1} = \frac{-5-1}{-5+2} = \frac{-6}{-3} = 2$