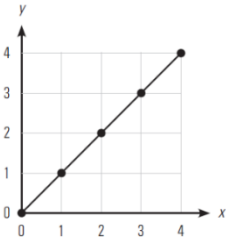
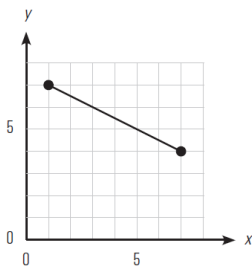


## Section 1.3: Rate of Change

### Slopes of Linear Graphs



**Positive** slopes: when the graph \_\_\_\_\_ from left to right.



**Negative** slopes: when the graph \_\_\_\_\_ from left to right.

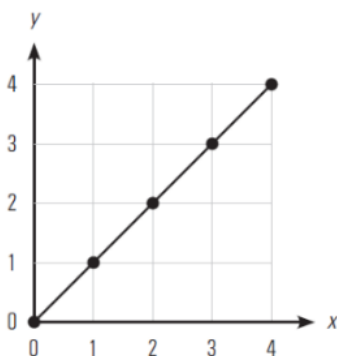
### Calculating Slopes of Linear Graphs

The slope of a linear graph can be calculated if you know the  $(x, y)$  coordinates of two different points along the graph.

These 2 points are called  $(x_1, y_1)$  and  $(x_2, y_2)$ .

**2-point Slope Formula:**  $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\text{vertical change}}{\text{horizontal change}}$

What is the slope of this graph?



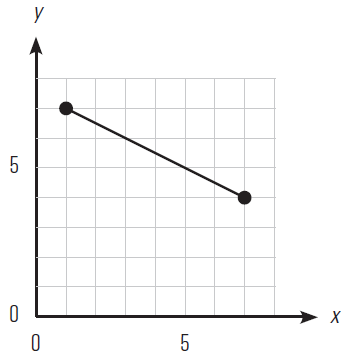
Formula Method:

Slope triangle method:

## Section 1.3: Rate of Change

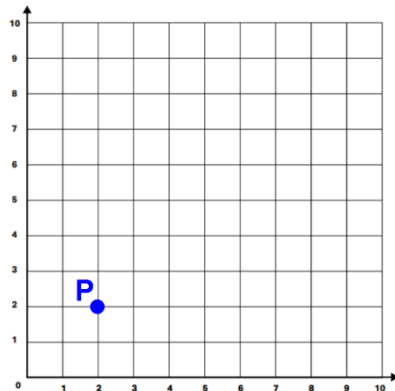
What is the slope of this graph?

Formula method:

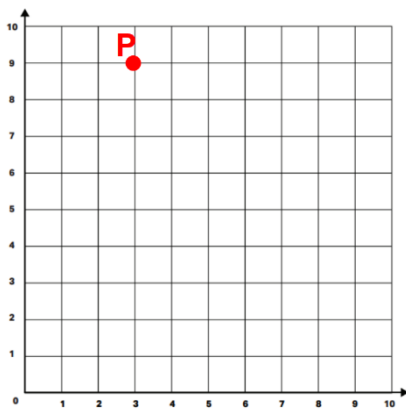


Slope triangle method:

**Example:**



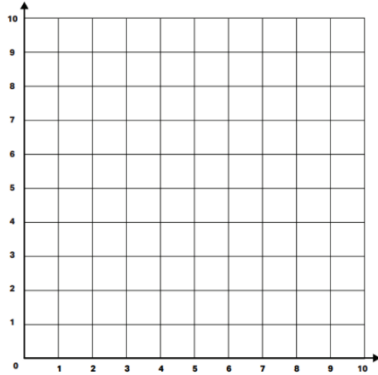
On the graph, draw a line through point P that has a slope of  $\frac{3}{4}$



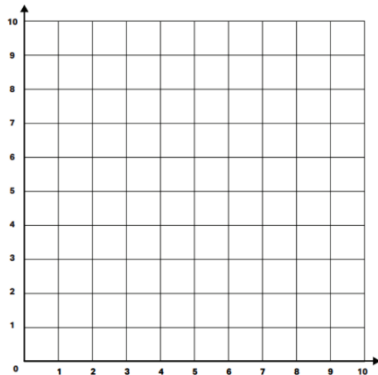
On the graph, draw a line through point P that has a slope of  $\frac{-5}{2}$

## Section 1.3: Rate of Change

### Special Slopes



**Zero slopes:** when the graph is \_\_\_\_\_



**Undefined slopes:** when the graph is \_\_\_\_\_

**Check your understanding:**

*Build your Skills, pg. 39 – 40, #1, 2, 3*

*Worksheet: Slope from a Graph, #1 - 8*