

## Math 0305 Supplement

### Find the slope of a line given: iii) a Table of Values

How to find the slope of a line from an X-Y table.

1. Create two sets of ordered pairs from the X-Y Table.

X	Y
$x_1$	$y_1$
$x_2$	$y_2$
$x_3$	$y_3$

Ordered Pairs :  $\{(x_1, y_1), (x_2, y_2)\}$  (Could also use  $(x_3, y_3)$ )

2. Substitute the values from these ordered pairs into the slope formula.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Could also use the following as well.  $m = \frac{y_3 - y_1}{x_3 - x_1} = \frac{y_3 - y_2}{x_3 - x_2}$

### EXAMPLE

Find the **slope** of the line from the given **X-Y table**.

X	Y
3	5
6	14
8	20

**Ordered Pairs** :  $\{(3,5), (6,14)\}$

$$m = \frac{14 - 5}{6 - 3} = \frac{9}{3} = 3; \text{ Could also use any combination of ordered pairs}$$

Therefore, the **Slope** of the line is equal to **3**.

### EXERCISES:

1.

X	Y
1	3
5	8
9	13

2.

X	Y
-2	4
5	6
12	8

3.

X	Y
-1	-2
3	1
7	4

4.

X	Y
-5	-1
7	-5
10	-6