

U11-5 Writing an equation given a table of values (two points)

Ex 1: y – intercept is given.

Write an equation in slope intercept form for the following table of values.

x	y
-1	-1
0	2
3	11
5	17

Step 1: Find the slope.

- Pick two points from the table (__, __) & (__, __) and use the slope formula: $\frac{y_2 - y_1}{x_2 - x_1}$

OR

- Find the rate of change from the table.

Step 2: Find the y-intercept.

- Which point has x = 0?
- b = (__, __) or b _____

Step 3: Use the slope and y-intercept to write your equation in slope-intercept form.

- m = _____
- b = _____
- y = _____

Try: Write an equation in slope-intercept form for the following tables or pair of points.

1.

x	y
-2	-5
0	-1
2	3
3	5

2

x	y
-4	-2
0	1
4	4
12	10

3. (0, 8) (3, 17)

Ex 2: y-intercept is *not* given

Write an equation in slope intercept form for the following table of values.

x	y
-4	-5
-1	1
1	5
3	9

Step 1: Find the slope.

- Pick two points from the table (__, __) & (__, __) and use the slope formula: $\frac{y_2 - y_1}{x_2 - x_1}$

OR

Find the rate of change from the table.

Step 2: Find the y-intercept.

- Pick any point from the table. (____, ____)
 - Let x = _____
 - Let y = _____
 - m = _____
- Substitute x = ____, y = ____ & m = ____ into the equation **y = mx + b** and solve to find "b"

Step 3: Use the slope and y-intercept to write your equation in slope-intercept form.

- m = _____
- b = _____
- y = _____

Try: Write an equation in slope-intercept form for the following tables.

5.

x	y
-3	10
-1	6
1	2
3	-2

6.

x	y
-2	-3
2	-1
4	0
6	1