

# Write Equations in Slope-Intercept Form From Tables

You can write the equation of a linear function in slope-intercept form, where  $m$  is the **slope** and  $b$  is the  **$y$ -intercept**:

$$y = mx + b$$

Each table represents a linear function. Find the **slope** and the  **$y$ -intercept**. Write the slope as a proper or improper fraction in simplest form or an integer. Then write the equation in slope-intercept form.



1.

x	y
0	6
1	9
2	12
3	15

slope: 3 $y$ -intercept: 6equation:  $y = 3x + 6$ 

2.

x	y
0	-5
1	-6
2	-7
3	-8

slope: -1 $y$ -intercept: -5equation:  $y = -x - 5$ 

3.

x	y
-1	4
0	1
1	-2
2	-5

slope: -3 $y$ -intercept: 1equation:  $y = -3x + 1$ 

4.

x	y
0	9
2	19
4	29
6	39

slope: 5 $y$ -intercept: 9equation:  $y = 5x + 9$ 

5.

x	y
-6	-8
-3	-3
0	2
3	7

slope:  $\frac{5}{3}$  $y$ -intercept: 2equation:  $y = \frac{5}{3}x + 2$ 

6.

x	y
-6	15
-4	14
-2	13
0	12

slope:  $-\frac{1}{2}$  $y$ -intercept: 12equation:  $y = -\frac{1}{2}x + 12$

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Keep going! Each table represents a linear function. Find the **slope** and the **y-intercept**. Write the slope as a proper or improper fraction in simplest form or an integer. Then write the equation in slope-intercept form.



7.

x	y
1	9
2	16
3	23
4	30

slope: 7y-intercept: 2equation:  $y = 7x + 2$ 

8.

x	y
16	-1
12	-2
8	-3
4	-4

slope:  $\frac{1}{4}$ y-intercept: -5equation:  $y = \frac{1}{4}x - 5$ 

9.

x	y
5	-8
10	-12
15	-16
20	-20

slope:  $-\frac{4}{5}$ y-intercept: -4equation:  $y = -\frac{4}{5}x - 4$ 

10.

x	y
-6	17
-2	11
2	5
6	-1

slope:  $-\frac{3}{2}$ y-intercept: 8equation:  $y = -\frac{3}{2}x + 8$ 

11.

x	y
-10	-3
5	3
20	9
35	15

slope:  $\frac{2}{5}$ y-intercept: 1equation:  $y = \frac{2}{5}x + 1$ 

12.

x	y
-13	-7
-9	-15
-5	-23
-1	-31

slope: -2y-intercept: -33equation:  $y = -2x - 33$