Exercise 23

For the following exercises, set up a table to sketch the graph of each function using the following values: $x = -3, -2, -1, 0, 1, 2, 3$.

$$f(x) = 3x - 6$$

x	y	x	y
-3	-15	1	-3
-2	-12	2	0
-1	-9	3	3
0	-6		

Solution

Plug the values of x into the given function $f(x)$.

$$f(-3) = 3(-3) - 6 = -9 - 6 = -15$$

$$f(-2) = 3(-2) - 6 = -6 - 6 = -12$$

$$f(-1) = 3(-1) - 6 = -3 - 6 = -9$$

$$f(0) = 3(0) - 6 = 0 - 6 = -6$$

$$f(1) = 3(1) - 6 = 3 - 6 = -3$$

$$f(2) = 3(2) - 6 = 6 - 6 = 0$$

$$f(3) = 3(3) - 6 = 9 - 6 = 3$$

Now plot the points and connect the dots.