Exercise 26

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

$$f(x) = -x^2$$

x	y	x	y
-3	-9	1	-1
-2	-4	2	-4
-1	-1	3	-9
0	0		

Solution

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

$$f(-3) = -(-3)^2 = -(9) = -9$$

$$f(-2) = -(-2)^2 = -(4) = -4$$

$$f(-1) = -(-1)^2 = -(1) = -1$$

$$f(0) = -(0)^2 = -(0) = 0$$

$$f(1) = -(1)^2 = -(1) = -1$$

$$f(2) = -(2)^2 = -(4) = -4$$

$$f(3) = -(3)^2 = -(9) = -9$$

Now plot the points and connect the dots.