Exercise 27

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

$$f(x) = x^3$$

x	y	x	y
−3	−27	1	1
−2	−8	2	8
−1	−1	3	27
0	0		

Solution

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

$$f(-3) = (-3)^3 = -27$$

$$f(-2) = (-2)^3 = -8$$

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

$$f(0) = (0)^3 = 0$$

$$f(1) = (1)^3 = 1$$

$$f(2) = (2)^3 = 8$$

$$f(3) = (3)^3 = 27$$

Now plot the points and connect the dots.