

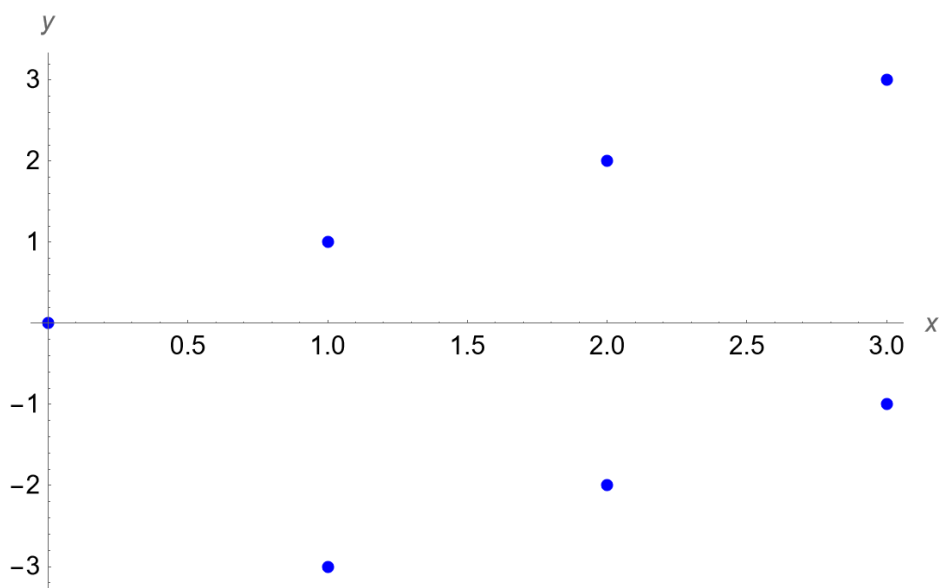
Exercise 3

For the following exercises, (a) determine the domain and the range of each relation, and (b) state whether the relation is a function.

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

Solution

Below is a plot of the data in this table.



Domain: $\{0, 1, 2, 3\}$

Range: $\{-3, -2, -1, 0, 1, 2, 3\}$

The relation is not a function because there are two values of y for $x = 1$, $x = 2$, and $x = 3$; that is, it fails the vertical line test.