Exercise 5
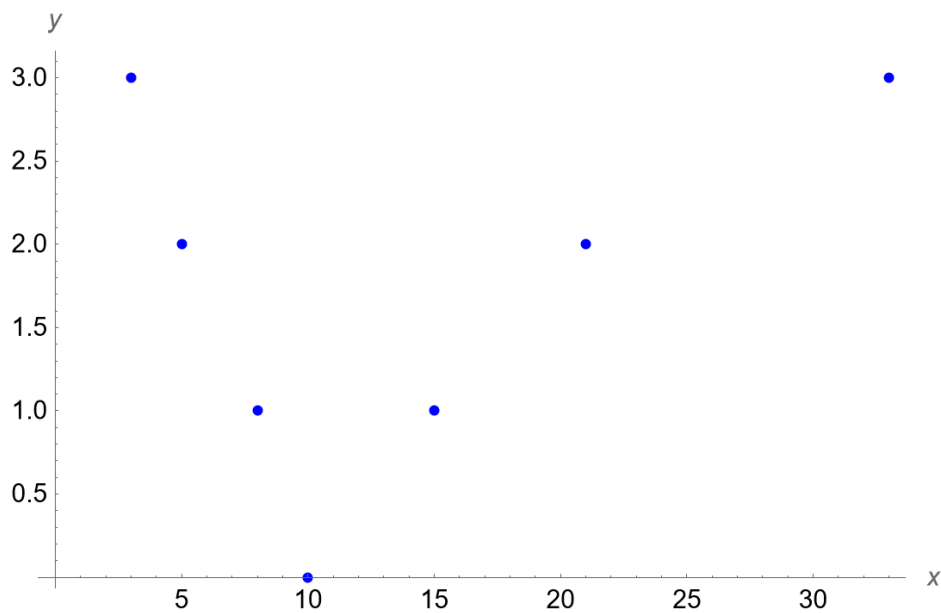
For the following exercises, (a) determine the domain and the range of each relation, and (b) state whether the relation is a function.

x	*y*	*x*	*y*
3	3	15	1
5	2	21	2
8	1	33	3
10	0		

Solution

Below is a plot of the data in this table.

$$\text{Domain:} \quad \{3, 5, 8, 10, 15, 21, 33\}$$

$$\text{Range:} \quad \{0, 1, 2, 3\}$$

The relation is a function because every value of x corresponds with only one value of y; that is, it satisfies the vertical line test.