Exercise 7
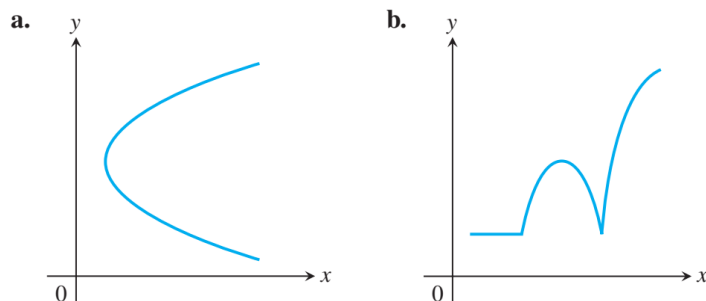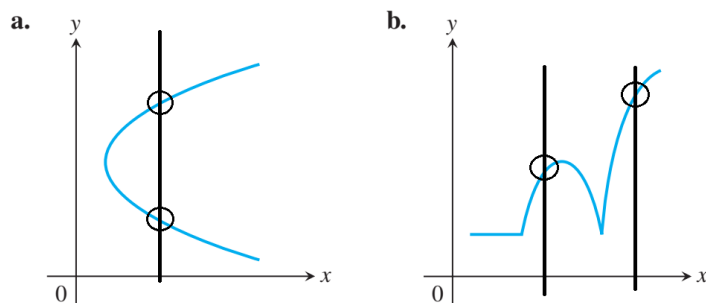
In Exercises 7 and 8, which of the graphs are graphs of functions of x, and which are not? Give reasons for your answers.

Solution

In order for a graph to be the graph of a function, it has to pass the vertical line test: Every vertical line can go through the graph no more than once.

The graph in a. fails the vertical line test, so it's not the graph of a function. On the other hand, the graph in b. passes the vertical line, so it is the graph of a function.