

Chapter 1

Functions and Graphs

Review Exercise Solution

Review Exercise 1.313

Instruction

Is it true or false that a relation passing the horizontal line test is a function.

Solution

The relation $x = y^2$ passes the horizontal line test but fails the vertical line test. Not how the vertical line in figure 1.1 intersects the graph at two places. Having found a relation that do pass the horizontal line test but failing the vertical line test shows that it is false that a relation passing the horizontal line test (always) is a function.

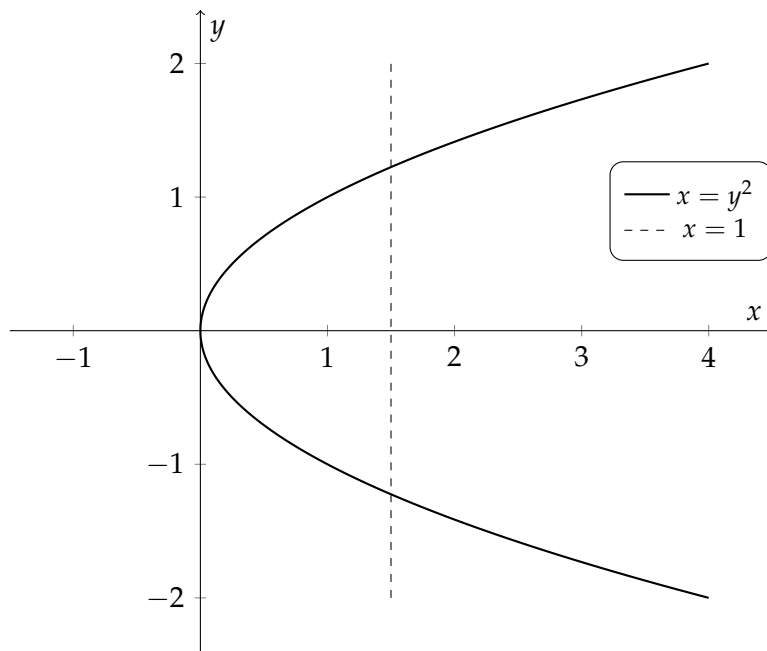


Figure 1.1: Sideways parabola that fails the vertical line test

Answer

False.