

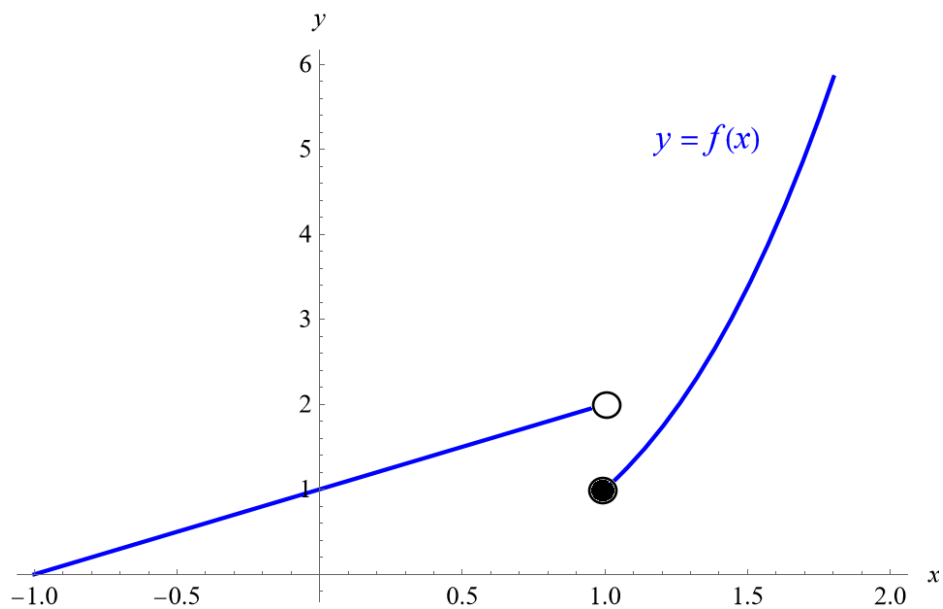
Exercise 44

For the following exercises, sketch a graph of the piecewise function. Write the domain in interval notation.

$$f(x) = \begin{cases} x + 1 & \text{if } x < 1 \\ x^3 & \text{if } x \geq 1 \end{cases}$$

Solution

Below is a plot of $f(x)$ versus x .



The domain is $(-\infty, \infty)$ because the function has an output for every value of x .