

Exercise 17

Sketch the graph of f by hand and use your sketch to find the absolute and local maximum and minimum values of f . (Use the graphs and transformations of Sections 1.2 and 1.3.)

$$f(x) = 1/x, \quad x \geq 1$$

Solution

On the interval $1 \leq x < \infty$ there's only an absolute maximum:

$$f(1) = \frac{1}{1} = 1.$$

This is illustrated in the graph of the function below.

