

Exercise 25

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.)

$$f(x) = 1 - \sqrt{x}$$

Solution

A domain isn't specified, so the function's entire domain is used.

$$x \geq 0$$

On the interval $0 \leq x < \infty$ there's only an absolute maximum:

$$f(0) = 1 - \sqrt{0} = 1.$$

This is illustrated in the graph of the function below.

