

Exercise 19

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.)

$$f(x) = \sin x, \quad 0 \leq x < \pi/2$$

Solution

A graph of the function is shown below. Since the interval $0 \leq x < \pi/2$ is closed on the left side, the function has an absolute minimum:

$$f(0) = \sin 0 = 0.$$

