

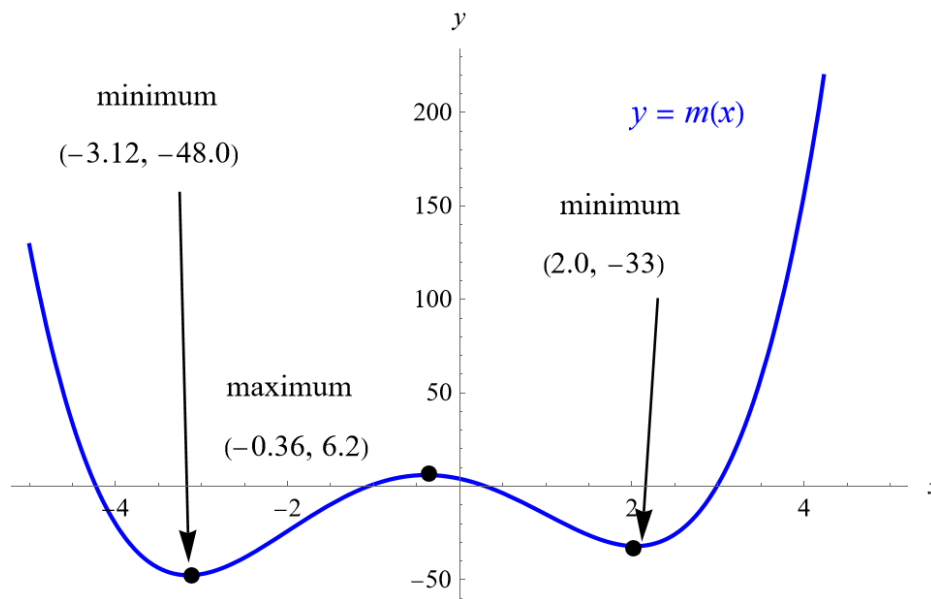
Exercise 39

For the following exercises, use a graphing utility to estimate the local extrema of each function and to estimate the intervals on which the function is increasing and decreasing.

$$m(x) = x^4 + 2x^3 - 12x^2 - 10x + 4$$

Solution

Below is a graph of $m(x)$ versus x .



The function is decreasing on $(-\infty, -3.12) \cup (-0.36, 2.0)$, and the function is increasing on $(-3.12, -0.36) \cup (2.0, \infty)$.