

Maximums and minimums

After completing this section, students should be able to do the following.

- Define absolute/global maximum and absolute/global minimum.
- Define relative/local maximum and relative/local minimum.
- Compare and contrast local/relative and absolute/global maxima and minima.
- Define a critical point.
- Find critical points.
- Find the absolute max or min of a continuous function on a closed interval.
- Identify situations in which an absolute maximum or minimum is guaranteed.
- Classify critical points.
- State the First Derivative Test.
- Apply the First Derivative Test.
- State the Second Derivative Test.
- Apply the Second Derivative Test.
- Define inflection points.
- Find inflection points.