

definición: la extensión

local maximum

local minimum

definition: local extrema

Let $f(x)$ be a function.

- We say that $f(x)$ has a **local maximum** at $x = a$ if $f(a)$ is the maximal value of $f(x)$ on some open interval I inside the domain of f containing a .
- We say that $f(x)$ has a **local minimum** at $x = a$ if $f(a)$ is the minimal value of $f(x)$ on some open interval I inside the domain of f containing a .

we look for "valleys" and "peaks" of a function

example

