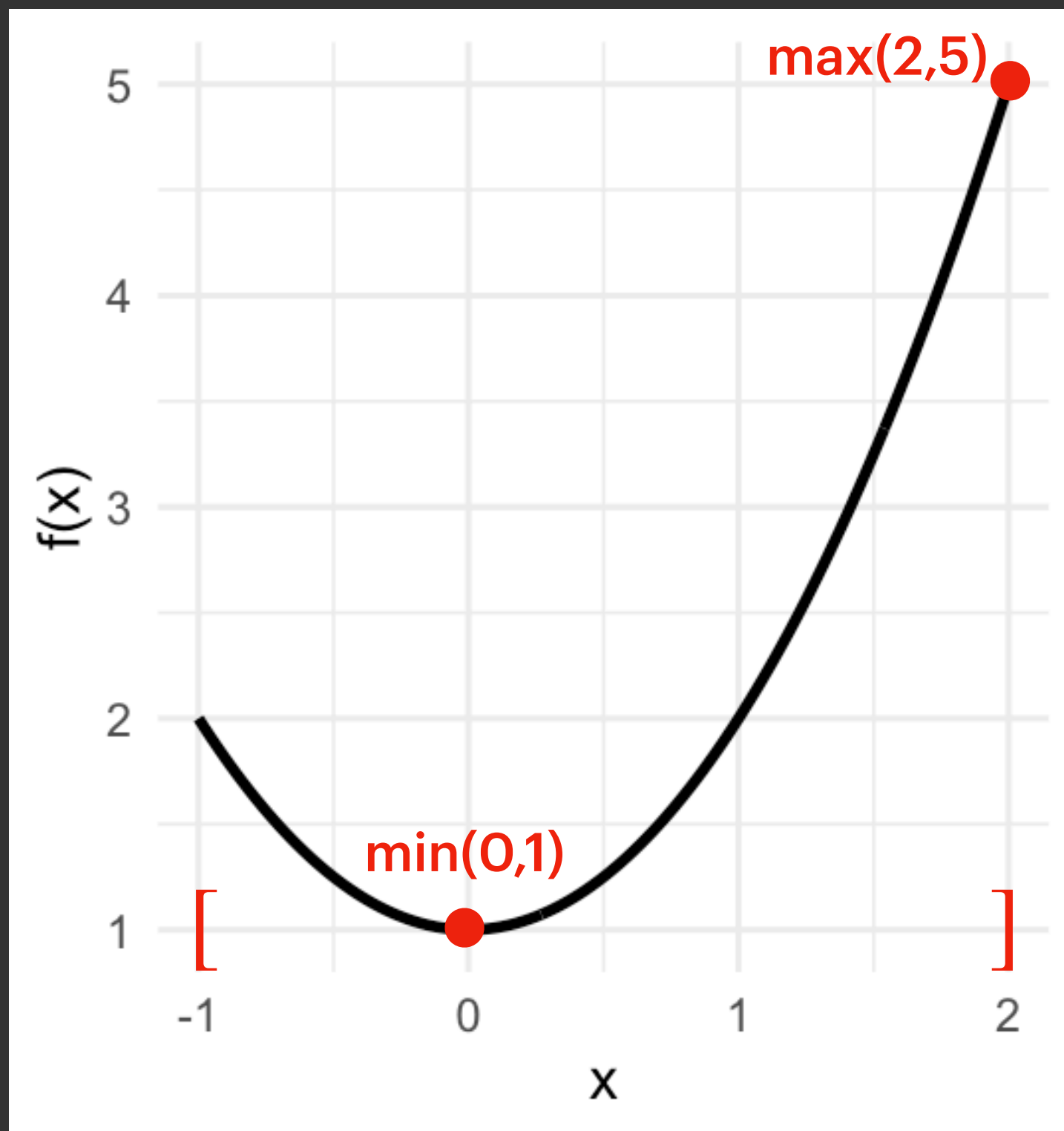
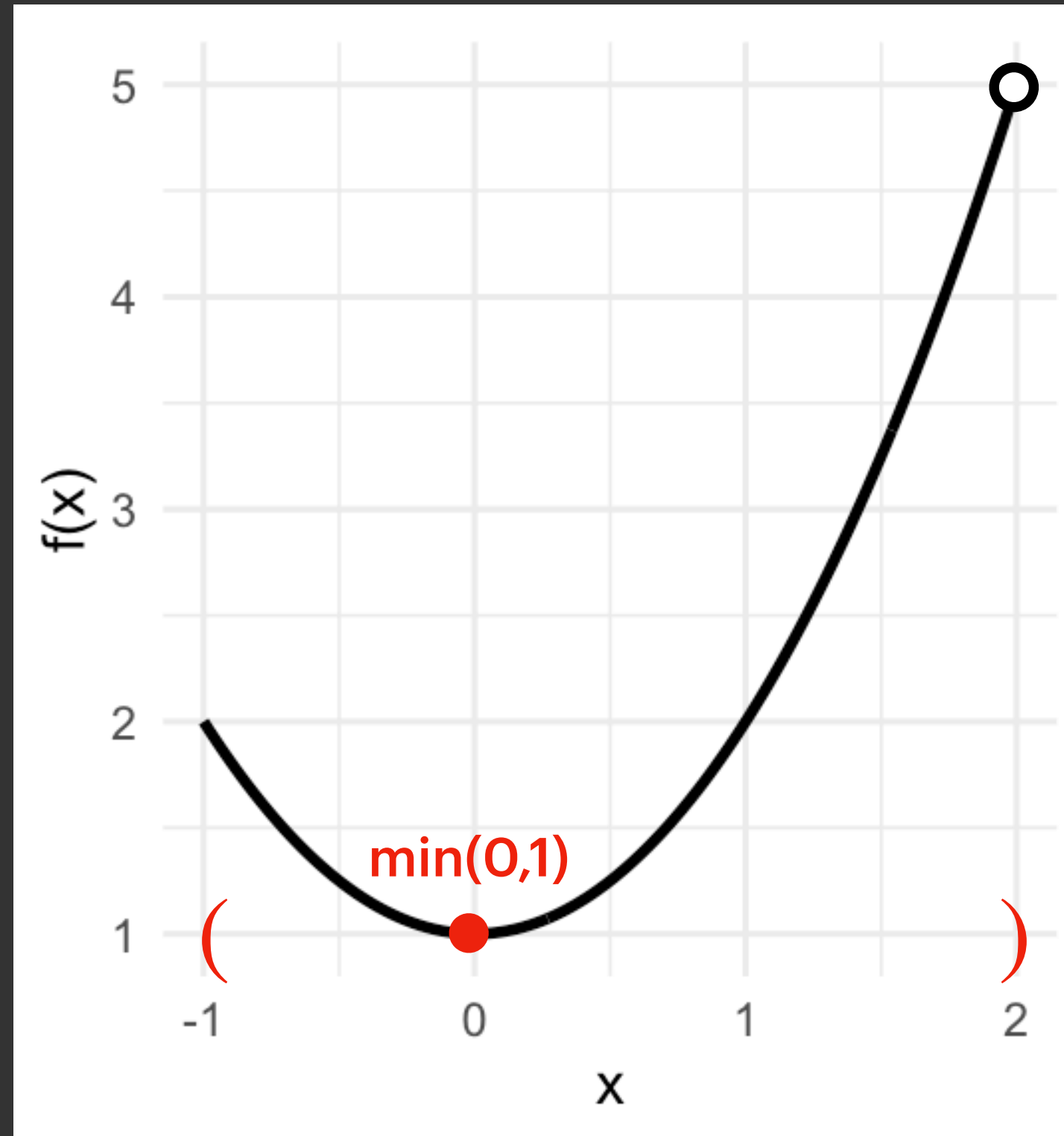


example

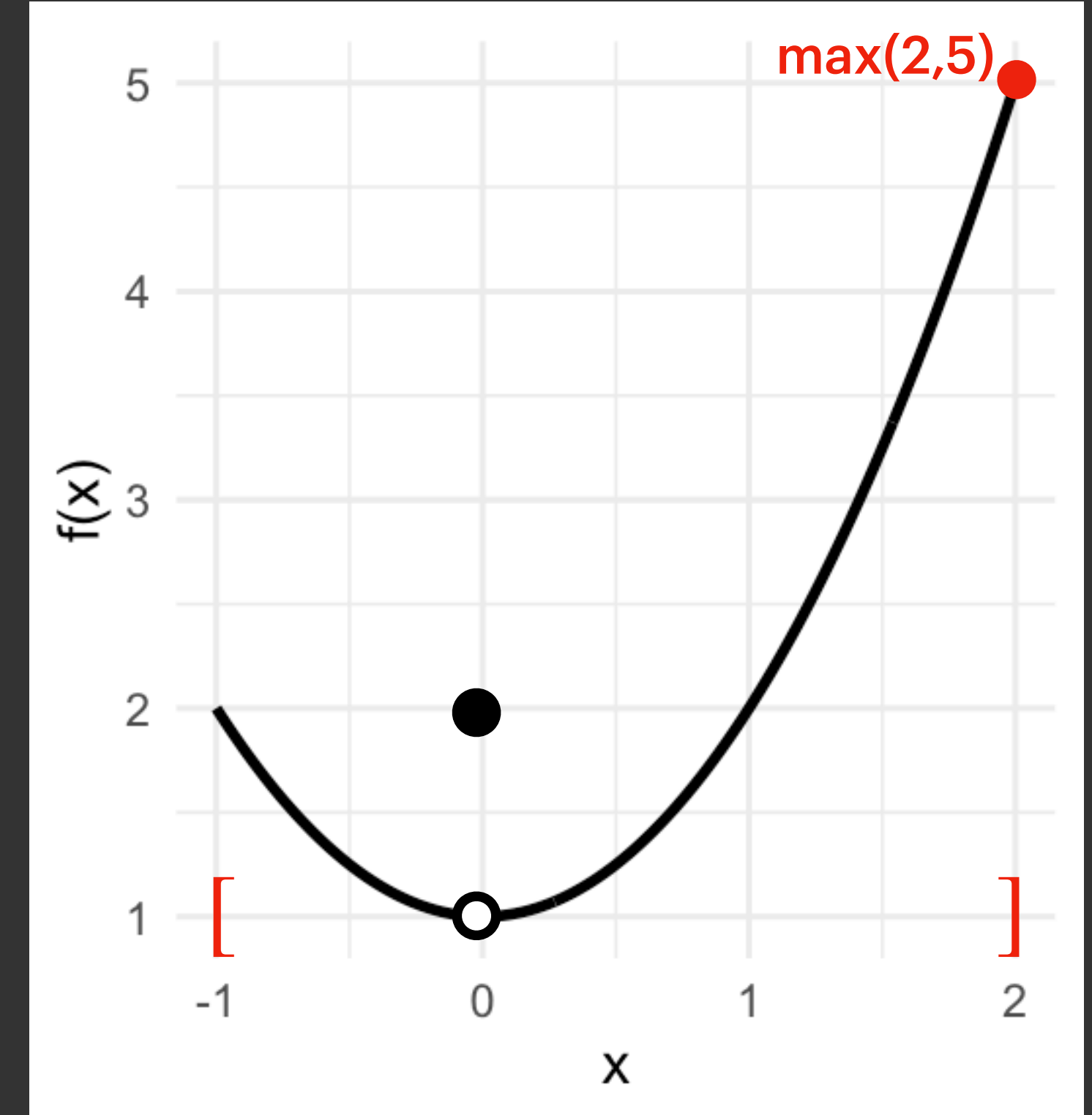
$$f(x) = x^2 + 1$$



$$f(x) = x^2 + 1$$



$$f(x) = \begin{cases} x^2 + 1, & x \neq 0 \\ 2, & x = 0 \end{cases}$$



extrema can occur in interior points or endpoint of an interval,
extrema occurring at endpoints are called **endpoint extrema**

definition: absolute extrema