3.1 Extrema on an Interval

✳ **Extrema:** (highest or lowest point)

↳ Let f be defined on an interval I such that $c \in I$.
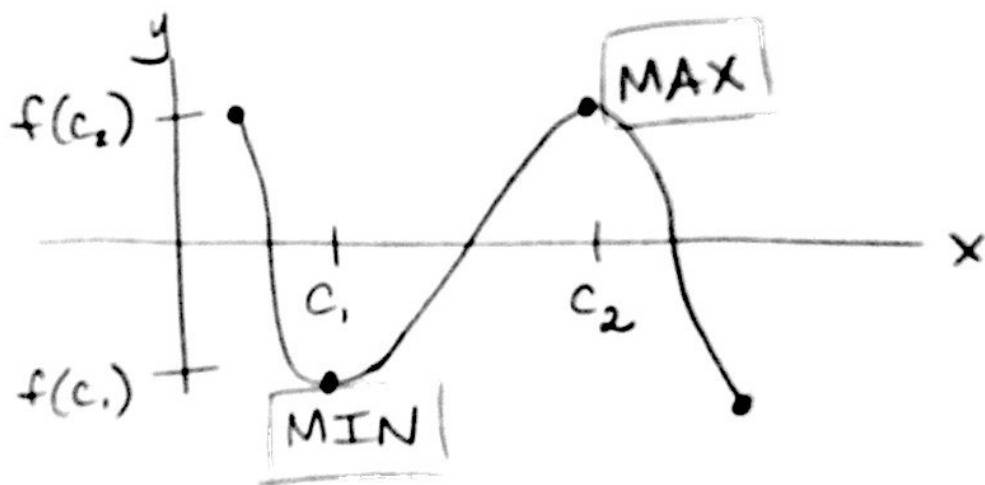
(x val)

(y val) $\Big\{$
1. $f(c)$ is the min of f on I if $f(c) \leq f(x)$ for all $x \in I$.
2. $f(c)$ is the max of f on I if $f(c) \geq f(x)$ for all $x \in I$.

✳ **Extreme Value Theorem (EVT):**
If f is continuous on the closed interval $[a,b]$, then f has a max and min on the interval.