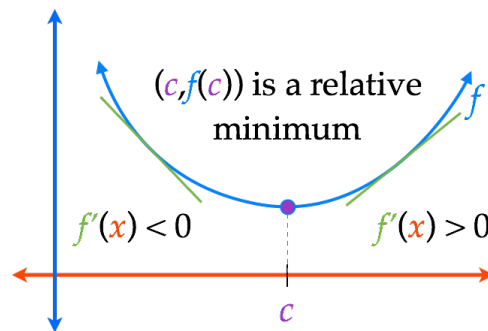


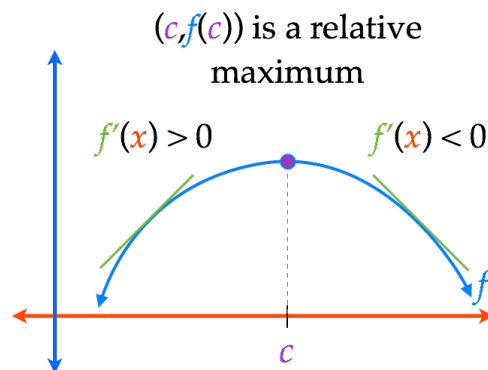
Let c be a critical number of function f .

1. If $f'(x)$ changes from negative to positive at c , then $(c, f(c))$ is a relative minimum of f .



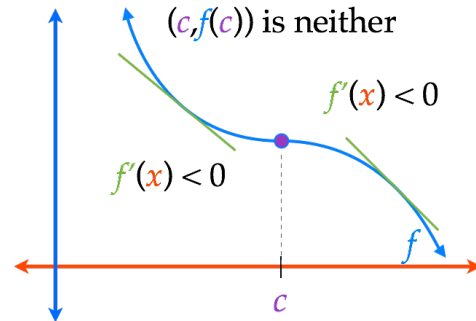
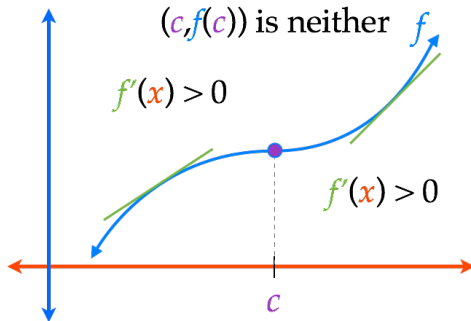
Let c be a critical number of function f .

1. If $f'(x)$ changes from negative to positive at c , then $(c, f(c))$ is a relative minimum of f .
2. If $f'(x)$ changes from positive to negative at c , then $(c, f(c))$ is a relative maximum of f .



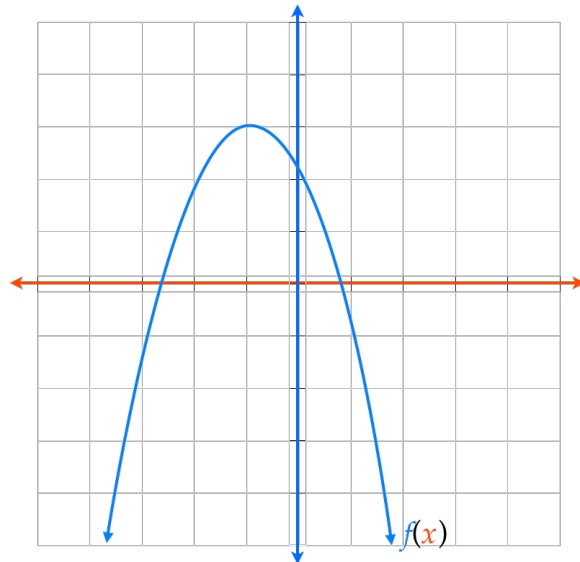
Let c be a critical number of function f .

1. If $f'(x)$ changes from negative to positive at c , then $(c, f(c))$ is a relative minimum of f .
2. If $f'(x)$ changes from positive to negative at c , then $(c, f(c))$ is a relative maximum of f .
3. If $f'(x)$ does not change signs at c , then $(c, f(c))$ is neither relative max or min of f .



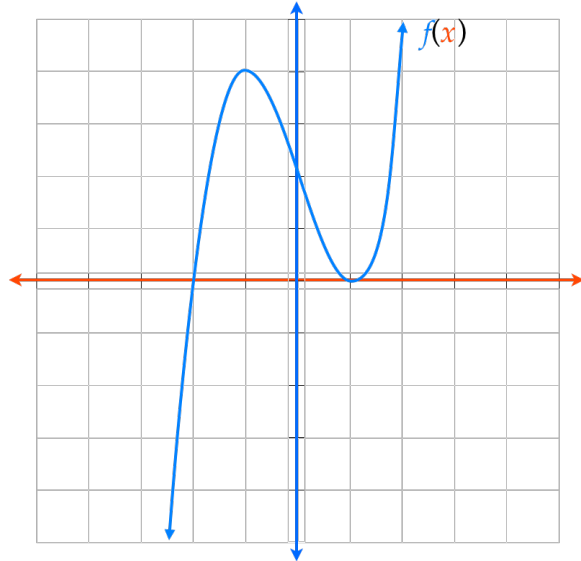
Find the relative max and min for the following.

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



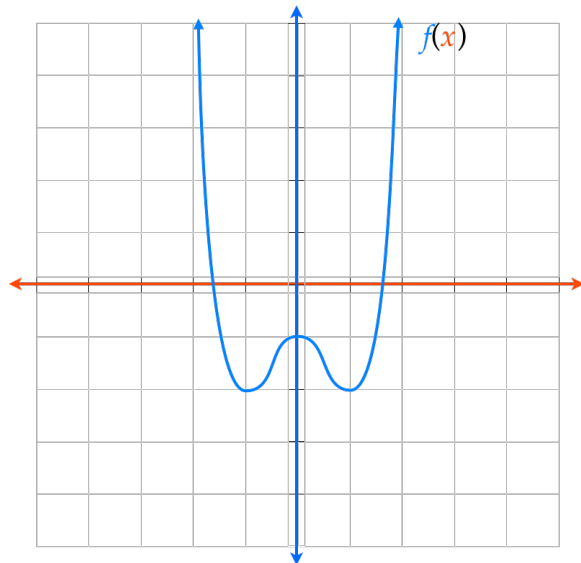
Find the relative max and min for the following.

$$f(x) = x^3 - 3x + 2$$



Find the relative max and min for the following.

$$f(x) = x^4 - 2x^2 - 1$$



Find the relative max and min for the following.

$$f(x) = \frac{x^4 + 1}{x^2}$$

