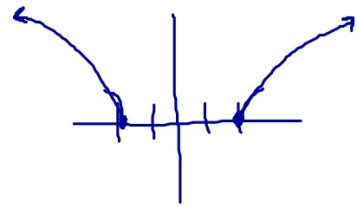


4.1 Extreme Values, cont.



Ex: Find extrema for $f(x) = \sqrt{x^2 - 4}$

$$f'(x) = \frac{1}{2}(x^2 - 4)^{-1/2} (2x)$$

$$f(2) = \sqrt{4 - 4} = \sqrt{0} = 0$$

=

$$f'(x) = \frac{x}{\sqrt{x^2 - 4}}$$

$$f(-2) = \sqrt{4 - 4} = \sqrt{0} = 0$$

$$\sqrt{x^2 - 4} = 0$$

Abs. min of 0 at

$$x^2 - 4 = 0$$

$$x^2 = 4$$

$$x = \pm 2$$

$x = 2$ and $x = -2$

7.194# 19-25

