

Double Quiz 11 (Show all work)

Find the following for $f(x) =$ (if they exist; if they don't exist, state so). Use this information to graph f .

Note $f'(x) =$ and $f''(x) =$

[2] 1a.) relative maximum(s) occur at $x =$ _____

[3] 1b.) The absolute maximum of f on the interval $[0, 5]$ is _____ and occurs at $x =$ _____.

[3] 1c.) The absolute maximum of f is _____ and occurs at $x =$ _____.

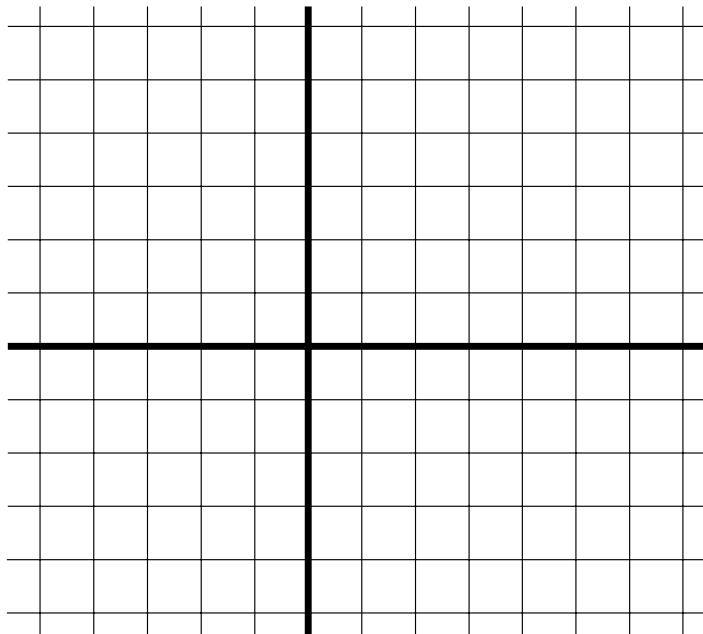
[2] 1d.) f is increasing on the intervals _____

[2] 1e.) f is concave up on the intervals _____

[3] 1f.) Equation(s) of vertical asymptote(s) _____

[3] 1g.) Equation(s) of horizontal asymptote(s) _____

[7] 1h.) Graph f



[10] 2.) related rates

[10] 3.) integration by substitution