

Name _____

Mathematics 105D: Calculus I
Fall Semester 2012
David Haines
September 28
Quiz #10

Here is a formula for $f(x)$: $f(x) = |x|$

The formula for $f'(x)$ is: $f'(x) = x/|x|$

The formula for $f''(x)$ is: $f''(x) = 0$ if $x \neq 0$

Use the above formulas (or graph them) to evaluate each limit, if it exists. If it does not exist, say why:

A. $\lim_{x \rightarrow 0} f(x) =$

B. $\lim_{x \rightarrow 0^+} f'(x) =$

C. $\lim_{x \rightarrow 0} f'(x) =$

D. $\lim_{x \rightarrow 0} f''(x) =$

E. $\lim_{x \rightarrow -2} f(x) =$

F. $\lim_{x \rightarrow 2} f'(x) =$