

Circle One:

Name: _____

11:00-11:55 (325)

3:30-4:20 (322)

Math211-2, Fall 2007

Quiz #1: 09-07-07

No Calculators.

1. (4 Points) Suppose $f(x) = \frac{|x|}{x}$. Sketch a graph of $f(x)$ and determine the following:

$$\lim_{x \rightarrow 0^+} f(x); \quad \lim_{x \rightarrow 0^-} f(x); \quad \lim_{x \rightarrow 0} f(x).$$

2. (3 Points) Find $\lim_{h \rightarrow 0} \frac{(h+3)^2 - 9}{h}$.

3. (3 Points) Suppose I have a continuous function f defined on the interval $[-2, 2]$. I don't know exactly what this function is, but I do know the following values: $f(-2) = -1$, $f(-1) = 2$, $f(0) = 0$, $f(1) = -1$, $f(2) = 5$. What can you say about the number of roots (zeros) of this function?