

Name _____
Student I.D. _____

Math 1210-1
Quiz 1
January 15, 2016

Directions: You may ask and answer each others questions on this quiz. The goal is to understand what you're doing and express your thoughts clearly. Write your own solutions though, rather than just copying someone else's. Calculators are not allowed on this quiz. Show your work.

1) Let $f(x)$ be defined piecewise by

$$f(x) = \begin{cases} -2x, & x < 0 \\ 1+x, & 0 \leq x < 1 \\ 2x^2, & x \geq 1 \end{cases}.$$

Find the following limits, or write DNE if they do not exist.

a) $\lim_{x \rightarrow 0^+} f(x)$

b) $\lim_{x \rightarrow 0} f(x)$

c) $\lim_{x \rightarrow 1} f(x)$.

(6 points)

2) Carefully sketch the graph $y = f(x)$ for the function $f(x)$ in problem 1.

(4 points)

