

Math 165: Honors Calculus I
Quiz 6 Oct. 12, 1995

Name: _____

1. Give precise definitions for the following.

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

b) $f(x)$ is continuous at $p.$

c) $f(x)$ has a removable discontinuity at $p.$

2. State the BASIC LIMIT THEOREMS.

3. Suppose $f(x)$ is a function with the following property: if $|x - 1| < 2$ then $|f(x) - 3| < 4|x - 1|^2$. Prove using the definition of limit that $\lim_{x \rightarrow 1} f(x) = 3$.