Math 165: Honors Calculus I Name:_____

Quiz 5 *Oct. 20, 1994*

1. Sketch the graph of the function $F(x) = \int_0^x |t|\, dt$ for $-2 \leq x \leq 2$.

2. Define the limit of a function, $\lim_{x \to p} f(x) = A$.

3. Prove using the definition of the limit that $\lim_{x \to 1} x^3 = 1$. (Mysterious hint: if $|x - 1| < 1$ then $|x^2 + x + 1| < 7$.)