311:01 **Part 1 of Exam 2** **4/17/2003**

NAME _____

1. Suppose $f: \mathbb{R} \to \mathbb{R}$ and $c \in \mathbb{R}$. Define "f is continuous at $c \in \mathbb{R}$."

2. Suppose $f: \mathbb{R} \to \mathbb{R}$ and $c \in \mathbb{R}$. State a sequential criterion which is equivalent to "f is continuous at $c \in \mathbb{R}$."

3. Suppose A is a subset of $\mathbb{R}$. Define "c is a cluster point of A."

4. Define "(x_n) is a Cauchy sequence."

5. Define "An infinite series $\sum_{j=1}^{\infty} a_j$ converges and its sum is L."