

Math 165: Honors Calculus I
Quiz 1 Aug. 31, 1995

Name: _____

1. a) Define $-a$ for $a \in$.

b) Prove that $a0 = 0$ for any $a \in$

c) Prove that $(-1)a = -a$ for any $a \in$.

2. Define the following:

a) an inductive set.

b) the natural numbers, .

c) $\sum_{k=1}^n a_k.$

3. Prove $\sum_{k=1}^n k = \frac{n(n+1)}{2}$ by induction.