Name _____

**Homework 11** Seating Section**: R M L**

**CS 336**

**The important issue is the logic you used to arrive at your answer.**

1. Consider the set *A* of all finitely long strings of 0's and 1's. Prove that A is countably infinite.

2. Consider the set *B* of all finite subsets of integers. Prove that B is countably infinite.

3. Consider the set *B* of all integer-valued functions defined on the set $\{0, 1\}$. (For example, one such function is f(0) = -7, f(1) = 17.) Prove *B* is countably infinite.