CS 381 Homework Fall 2005

Assignment 1 due Friday, Sept. 2

1. Write out a proof that the set of reals is not countable infinite.

2. a) List the three shortest strings in the set $\left\{0^n 10^{n+1} 1 \mid n \geq 1\right\}$.

   b) Describe the set of strings denoted by $\left\{0^n 10^{n+1} 1 \mid n \geq 1\right\}^*$. How many strings are there of length less than or equal to 15?

3. 2.2.4 b and c

4. 2.2.5

5. 2.2.11