COMP 301
Assignment 0
Due 10:30, Thursday, September 5, 2002
All problems are of equal value.

Reading
Sipser, Chapter 0.

Practice
Sipser, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 0.13.

To Be Handed In
1. Give a short description in English of the following language:

   \{0,10\}^*.

2. What is the next string in the following (infinite) language:

   \{10,11,101,111,1011,1101,\ldots\}.

3. Prove that in any group of \(n \geq 2\) people there are always at least two people with the same number of friends. (Assume that friendship is a symmetric relation.)

4. Sipser, 0.10.

5. Sipser, 0.11.

Bonus
Sipser, 0.12.