# CSE 322 Winter 2008
# Assignment #1

Due: Friday, January 18, 2008

**Reading assignment:**    Read Sipser's book, sections 1.1 and 1.2; you should already have read Chapter 0.

**Problems:**

1. Sipser's text, Problem 0.11 (either edition).

2. Sipser's text, Exercise 1.3 (either edition).

3. Sipser's text, Exercise 1.6 in the 2nd edition (Exercise 1.4 in the 1st edition), parts (b), (c), (d), (f), (h), (j), (l). As documentation for your DFAs, for each state write a very brief description of the set of strings that reach that state.

4. Give a state diagram of a DFA recognizing the set of binary strings of length at least 3 that have a 0 in the next-to-last position. As documentation for your DFA, for each state write a very brief description of the set of strings that reach that state.

5. (Extra credit) Sipser's text, Problem 1.37 in the 2nd edition. (Problem 1.30 in the first edition.)