CS 311: Computational Structures
Exercise 1

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1. Sipser problem 0.3 all parts.

2. (a) Draw a 2 state DFA that accepts at least one string and does not accept at least one string. (You can use examples from the text, such as Example 1.7 if you like.)

   (b) Give a string accepted by your DFA. Illustrate the "Formal Definition of Computation" for DFAs on the string accepted. To illustrate the definition of acceptance identify all values and conditions in the definition. In the third edition of Sipser, this definition immediately preceeds Definition 1.16 on page 40.

   (c) Give a string not accepted by your DFA. How can you use the formal definition to conclude the string is not accepted?