CS533: Homework 1

Chapter 0

Questions are from the 3rd Edition of *Introduction to the Theory of Computation* by Michael Sipser.

Question 1: Exercise 0.1 part a, c, e
Question 2: Exercise 0.2 part a, d, e, f
Question 3: Exercise 0.3
Question 4: Exercise 0.4

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Question 5: Exercise 1.5 part d, f, g

Draw the state diagram for the simpler language, and then show the state diagram for its complement. A DFA is a deterministic finite automata: each state must have exactly one transition for each character.

Question 6: Exercise 1.6 part a, b