Automata Theory: Assignment 6

Due date: February 28 (Thursday)

Problem 1 (5 points)
Demonstrate that, if L_1 is a regular language on the alphabet $\Sigma = \{a, b\}$, then the following subset of L_1 is also a regular language:

$$L_2 = \{w : \ w \in L_1 \text{ and the length of } w \text{ is odd}\}.$$

Problem 2 (5 points)
Describe a method for determining whether a given regular language L includes any string w such that w^R is also in L.