

Homework 1: Regular Languages and DFAs  
Theory of Computation (CSCI 3500)  
Total Points: 10

Due: Wednesday, Sept. 13 by 11:59pm

Write the solution to each question on its own page.

0. (1 pt): Define the language of binary words that have an even number of ones.
  
  
  
  
  
  
  
  
  
  
1. (1 pt): Define the language of binary numbers that do not have a subword of 11.
  
  
  
  
  
  
  
  
  
  
2. (2 pt): Define a DFA for the following language:

$$L = \{w \in \{0, 1\}^* \mid |w|_0 = 1 \text{ or } |w|_1 = 2\}$$