

4200 - Formal Languages: Homework #3

Due on Feb 19, 2021 at 8:00am

Instructor: Dr. Anh Nguyen

Problem 1

15 points

Construct NFA that recognizes following languages:

1. All binary numbers that contain 00 or 11
2. All binary numbers that contain a 1 in the 3rd location from the right (e.g. **1**00, 10**1**11, ...)
3. All binary numbers that can be divided by 3

Problem 2

15 points

Via subset construction, construct DFAs from all three NFAs that were constructed in problem 1. Please show step-by-step solutions.