

CS4121 Homework Assignment 1

(Due Date: Wednesday, Feb. 20 at 9:05 AM)

ATTENTION: Submit your work through Canvas. I do not accept paper submission. If you work on paper, scan it to pdf and then submit the pdf file.

- (24 points) Construct a minimal DFA for regular expression $1(10|01)^*1$ following the steps below:
 - construct an equivalent NFA using Thompson's construction,
 - convert the NFA to an equivalent DFA (show your work),
 - minimize the DFA in step b (show your work).
- (20 points) Problem 2.5 in Section 2.6 at page 104.
- (8 points) Minimize the following DFA. Show your work.

