

Automata Theory: Assignment 5

Due date: October 11 (Thursday)

Problem 1 (4 points)

Draw an NFA that accepts the language defined by the following grammar:

$$\begin{aligned} S &\rightarrow aaA \mid \lambda \\ A &\rightarrow bbB \mid ccC \\ B &\rightarrow bB \mid bC \\ C &\rightarrow cC \mid S \end{aligned}$$

Problem 2 (6 points)

Give a right-linear grammar and left-linear grammar for the following language:

$$\{b^n ab^m a : n \geq 2, m \geq 2\}$$