

Discussion Section: LR(0) and N DFA Lambda Removal

Handout written by David Underhill.

Problem 1 Reverse Polish Notation

Reverse Polish notation is a postfix notation. Here is a simple grammar for recognizing this notation:

$$NT = \{ S, O \}$$

$$T = \{ x, +, * \}$$

$$S \rightarrow SSO$$

$$S \rightarrow x$$

$$O \rightarrow +$$

$$O \rightarrow *$$

- Generate the family of LR(0) configuration sets for this grammar.
- Generate the parse table.
- Trace through a parse of the input $xx+xx+*$

Problem 2 The Lambda Horror N DFA Show

Remove all λ s from the N DFA in Figure 1.

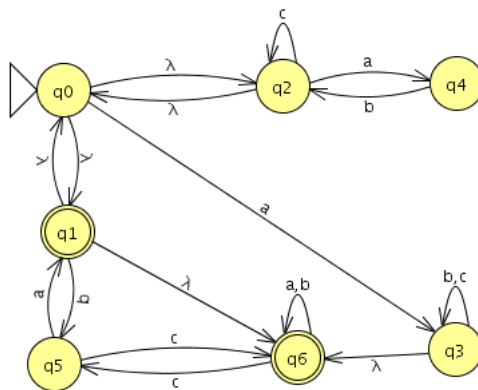


Figure 1: λ -N DFA to remove λ s from.