

CS 311: Computational Structures

Problem Set 2

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1. Sipser 1.10 c. star construction of \emptyset .
2. Sipser 1.16 b. NFA to DFA construction.
3. Sipser 1.28 b. Conversion of Regular expression to NFA.
4. Sipser 1.39. Show that for every $k > 1$ there is a language that is recognized by a DFA with k states but not by one with only $k - 1$ states.
5. Sipser 1.42 (shuffle).