

Lecture #5: Introduction to Nondeterministic Finite Automata

Questions for Review

1. Give the formal definition of a **nondeterministic finite automaton** — describing everything that this includes.
2. Describe how **deterministic finite automata** and **nondeterministic finite automata** are different.
3. Describe a way to show that a given string is accepted by a given nondeterministic finite automaton — which involves making *guesses* whenever there is more than one way to process a given symbol.
4. What is the **λ -closure** of a state? Why is this useful?
5. Describe a way to decide whether a given nondeterministic finite automaton **accepts** a given string. This time, no “guessing” is involved!