

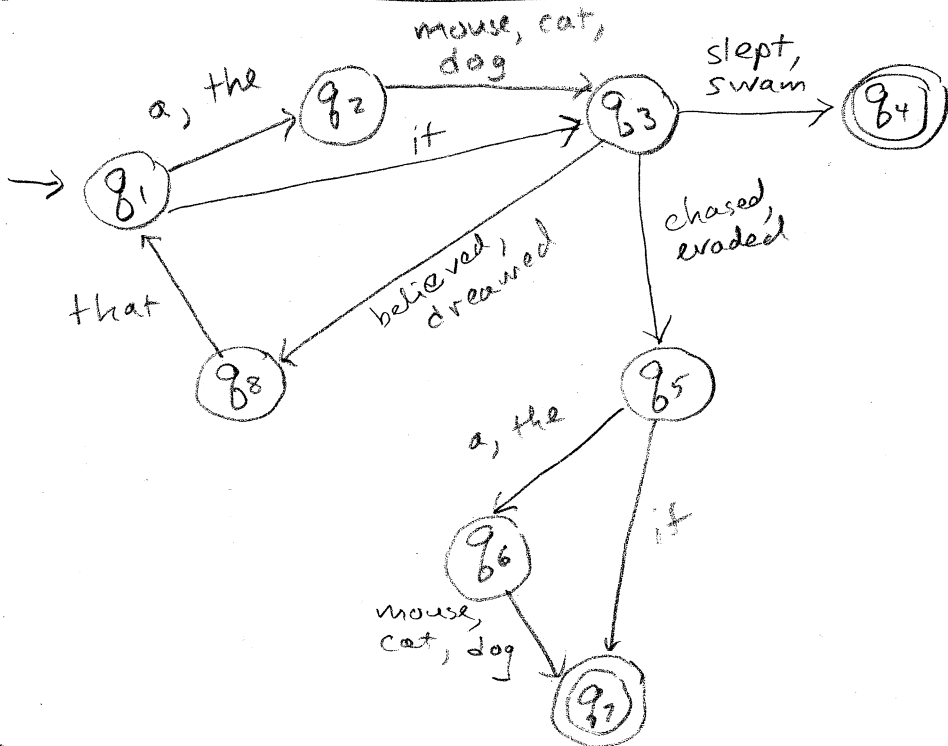
(1) A Context Free Grammar

DA  
4/22/14

- $S \rightarrow NP VP$
- $NP \rightarrow Det N \mid PN$
- $Det \rightarrow a \mid the$
- $N \rightarrow mouse \mid cat \mid dog$
- $PN \rightarrow it$
- $VP \rightarrow V_I \mid V_T NP \mid V_3 \text{ that } S$
- $V_I \rightarrow swam \mid slept$
- $V_T \rightarrow chased \mid evaded$
- $V_3 \rightarrow believed \mid dreamed$

The language of this grammar happens to be regular, as well as context free.

(2) A DFA to recognize the same language



(Of course, such a conversion is not always possible: there are context free languages that are not regular.)