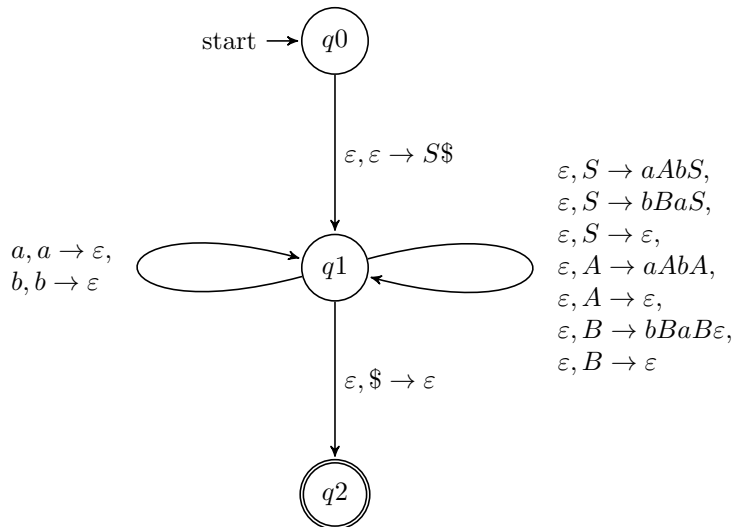


Homework 3—CSC 320 Summer 2018

Due by conneX submission at 11:55pm on Wednesday June 24

1. Convert the CFG to a PDA



2. Convert the PDA to a CFG

$A_{03} \rightarrow A_{12}$
 $A_{12} \rightarrow 0A_{12}1$
 $A_{12} \rightarrow 01$

3. A TM with stay put instead of left...At each step, the machine can move to the right or stay on the currently scanned square. Show that this TM model is not equivalent to the standard model. What class of languages does this model recognize?

Since the machine can not go back and view what is previously wrote, it does not have the ability to keep track. Therefor, this machine only recognizes the class of regular languages. Which can be represented by DFAs

We will make a DFA recognizing the same language. As soon as M moves right, it cannot access anything it has written. This is what makes it similar to a DFA. We will add transitions from the F to $q_{acceptt}$ upon reading a a blank and from sattes outside of F to q_{reject} upon reading a blank