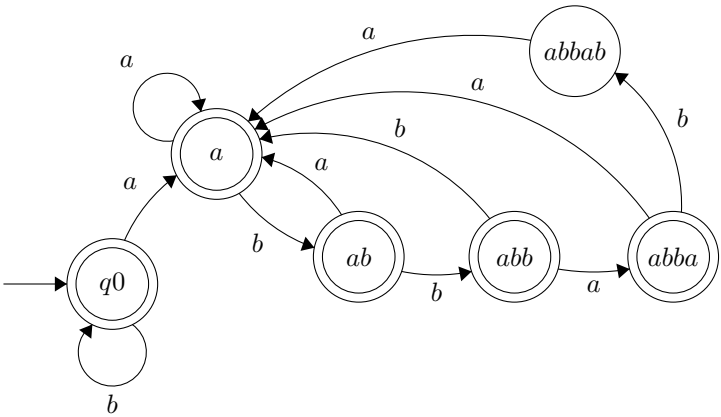


# CS 321, Assignment 1

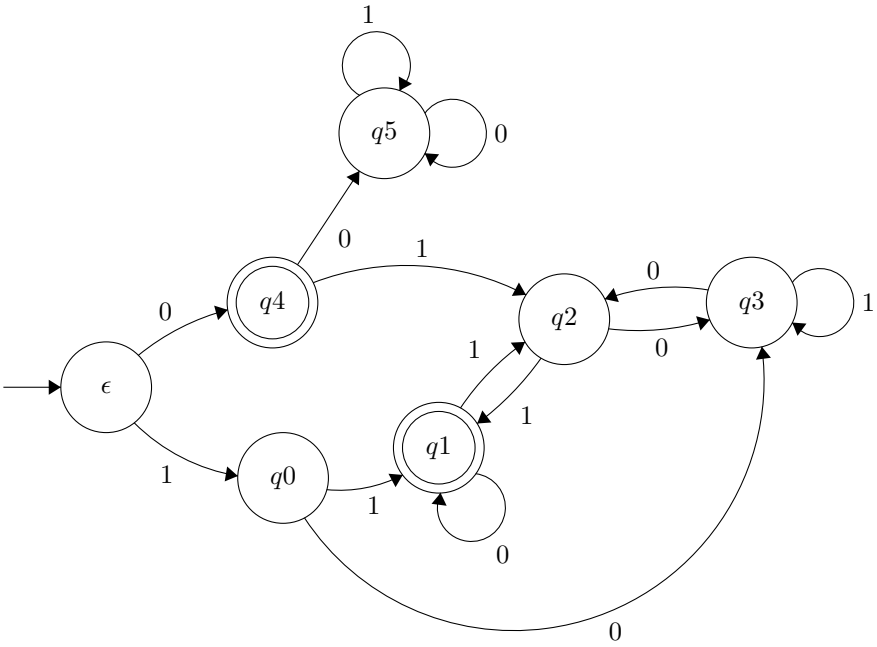
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September 30, 2016

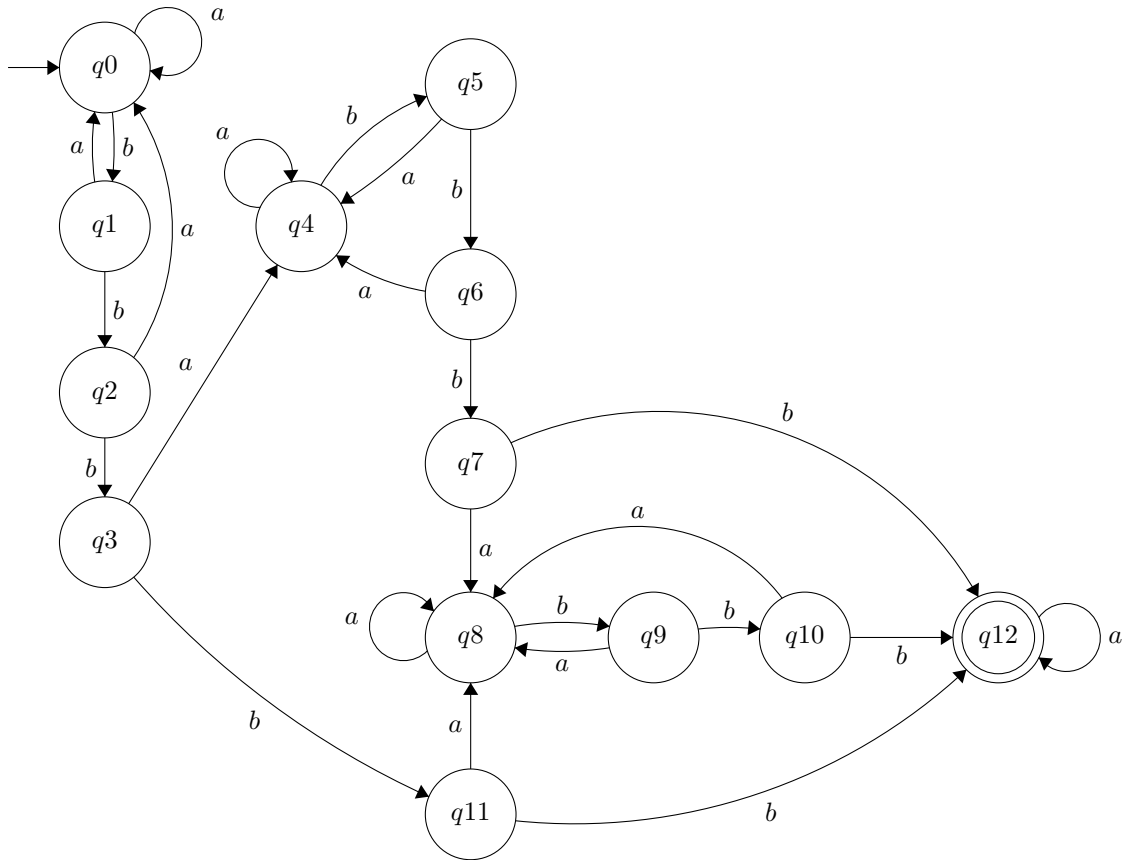
1



2

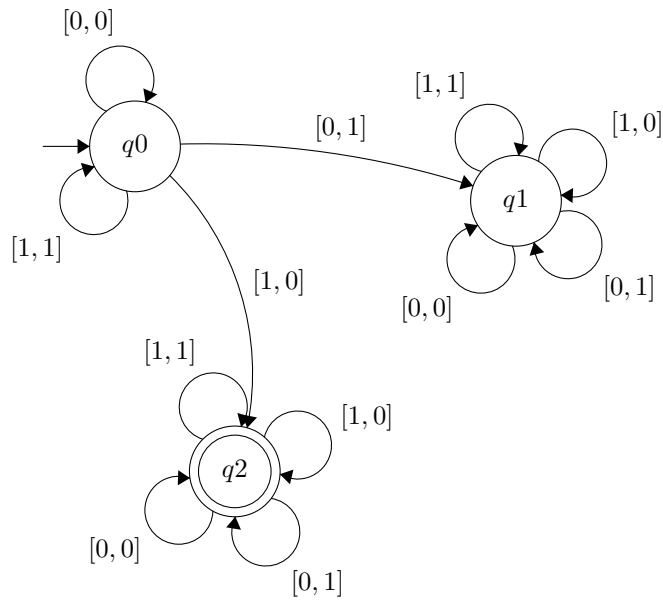


3



4

Note: The format of the nation in this diagram is [top row, bottom row]. [1,0] would be 1 in the top row, and a 0 in the bottom.



## 5

Base Case:  $rev(\epsilon) = \epsilon$   
 $rev(wb) = b \ rev(w)$

Inductive Step:

For  $|y| + 1$ :

$$\begin{aligned} rev(xy) &= rev(yb) \ rev(x) \\ &= b \ rev(y) \ rev(x) \end{aligned}$$