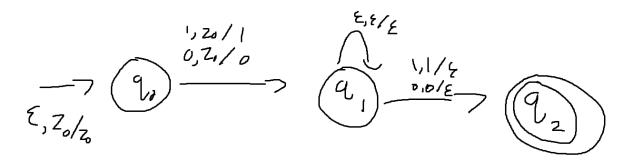
1a.



Z0 = empty stack

Q0 = Push

Q2 = Final State

1b.

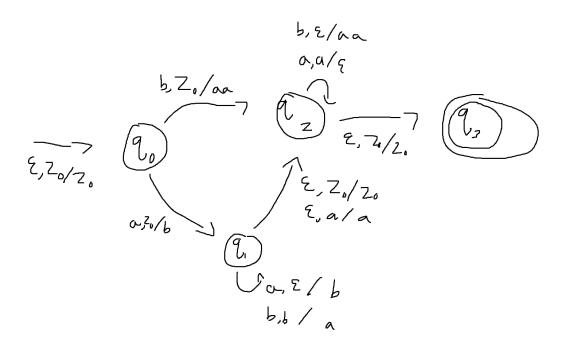
$$\frac{-7}{5,24/2}, \frac{90}{5}, \frac{\xi, \xi/\xi}{5}, \frac{\xi, z_0/z_0}{5}, \frac{\xi, z_$$

Z0 = empty stack

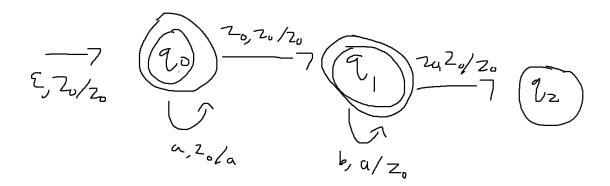
Q0 = Push

Q2 = Final State

2.



3.



4.

9.5/5



a, a / ε

b,b/ ε

 ϵ , Y / bY

 ϵ , Y / aY

ε, Υ / ε

ε, S / aSb

 ϵ , S/bY

ε, S / Ya