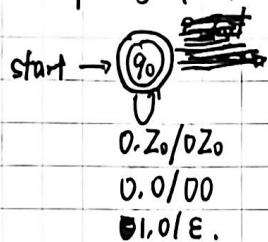


Week 7. By Deng Yufan.

Prob1. Design PDA.

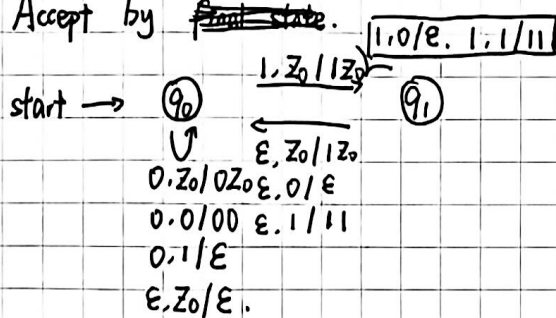
a. $\{w \in \{0,1\}^* \mid \forall x, xy=w, \#0(x) \geq \#1(x)\}$.

Accept by final state.



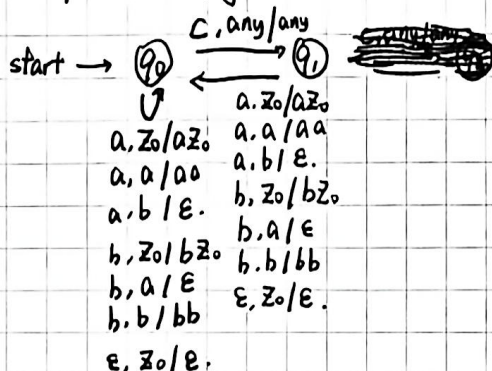
b. $\{w \in \{0,1\}^* \mid \#0(w) = 2\#1(w)\}$.

Accept by ^{empty stack.} ~~final state.~~

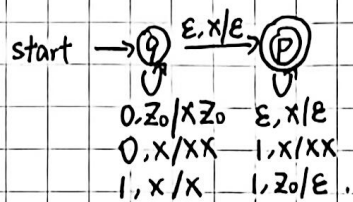


c. $\{w \in \{a,b,c\}^* \mid \#a(w) = \#b(w), c \notin w\}$.

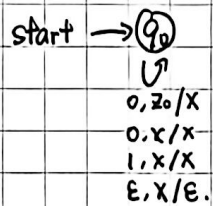
Accept by empty stack. where c.any/any means $c, Z_0 / Z_0$.



Prob 2. Consider PDA P .



a. Construct P_1 st. $N(P_1) = L(P)$.



b. Construct P_2 st. $L(P_2) = N(P)$.

