$\Sigma = \{a, b\}$

1. $a \dots a$

$ab^*b^3b^*a$ $\quad L = \{ab^n a \mid n \geq 3\}$

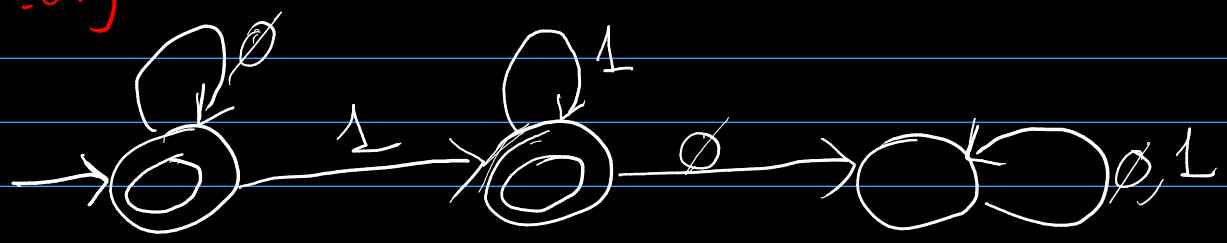
$\Sigma = \{a\}$

2. $A \to AaA \mid a$

$L = \{a^{2n+1} ; n \geq 0\}$

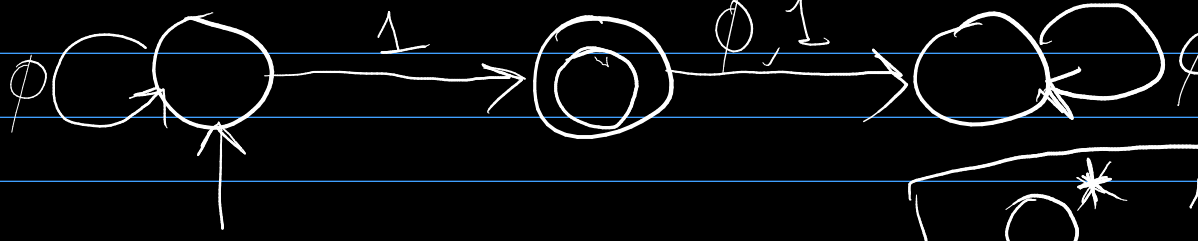
$a, AaA, AaAaA$
$aaa, aaaaa$

3.a)



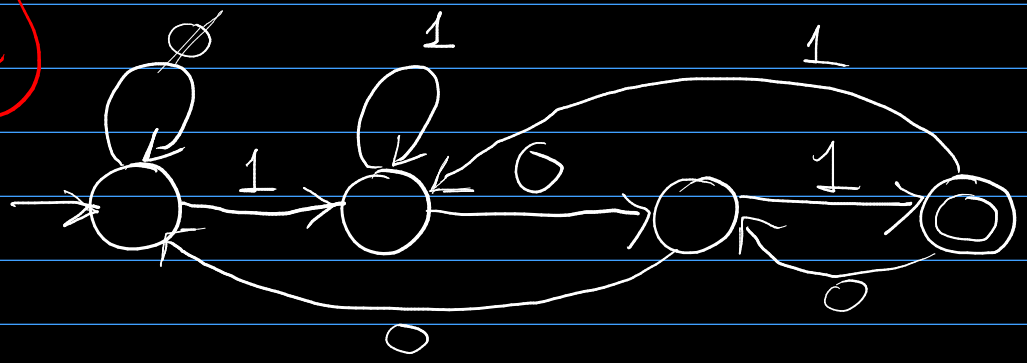
$L = \{0^n 1^m \mid n, m \geq 0\}$ $\quad 0^* 1^*$

3.b)



$L = \{0^n 1 \mid n \geq 0\}$ $\quad 0^* 1$

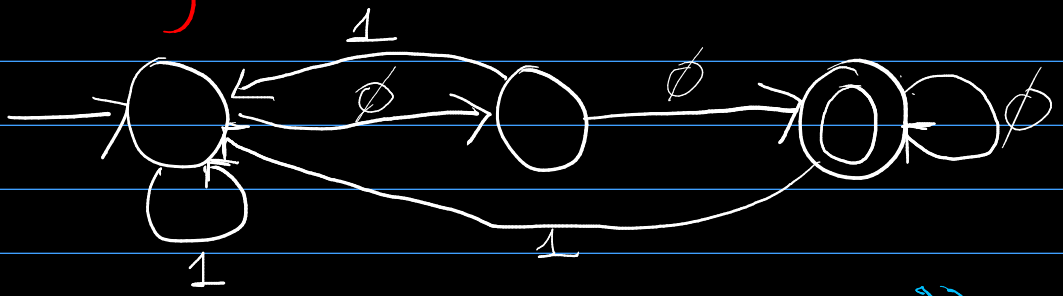
3.c)



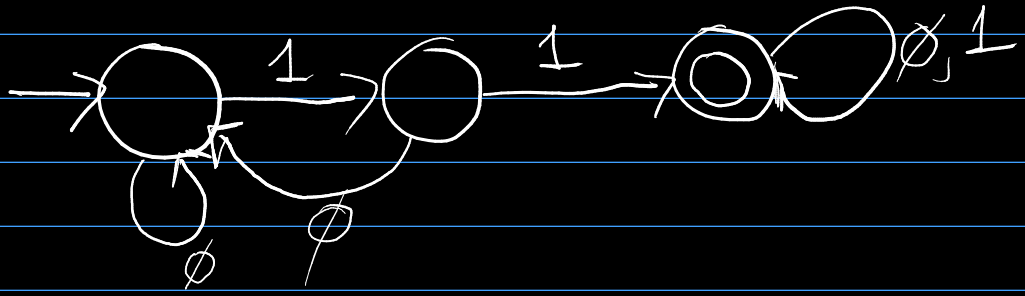
$$L = \{ (0^n 1^m)^k 101 \mid n, m, k \geq 0 \}$$

$$(0 \cup 1)^* 101$$

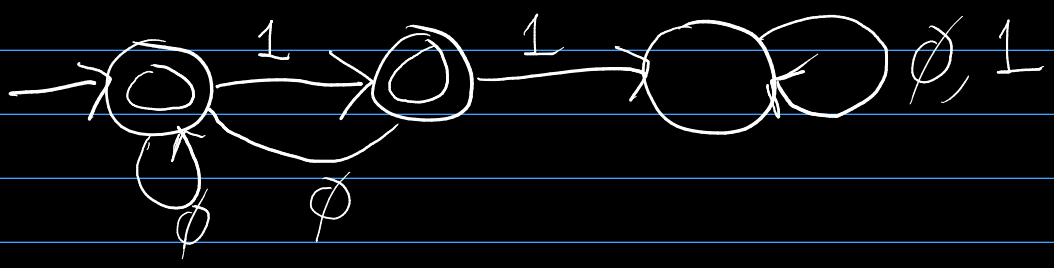
4.a) "Cadenas terminadas en 0^{2}"



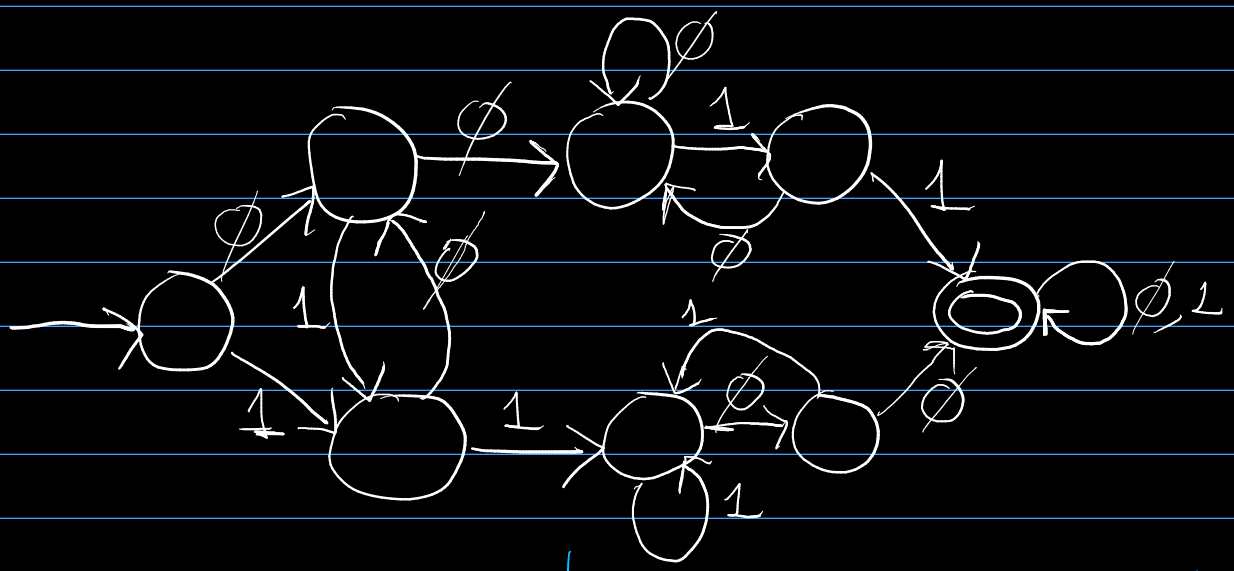
4.b) "Cadenas con 1^{2}"



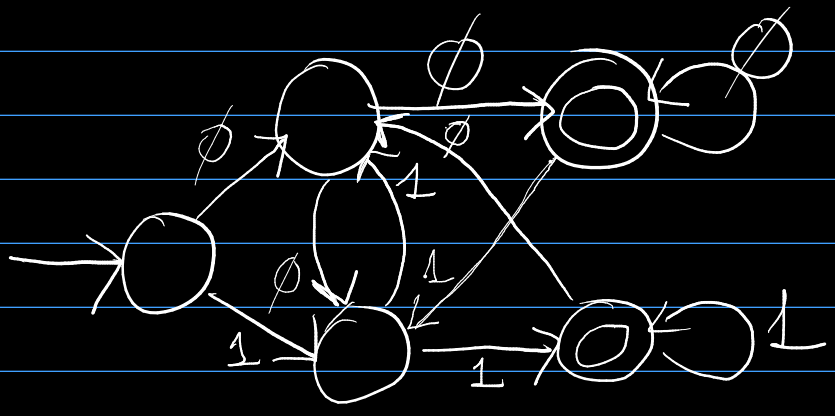
4.c) "Cadenas sin 1^2"



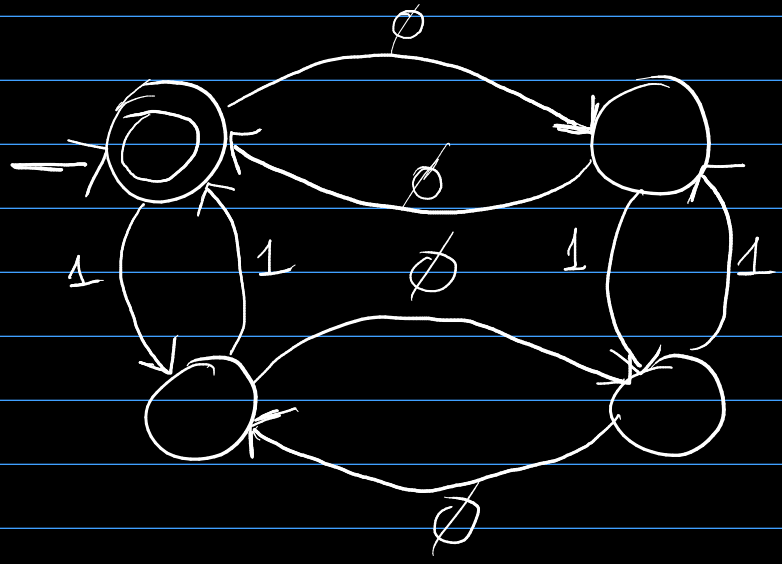
4.d) "Cadenas con 0^2 y 1^2"



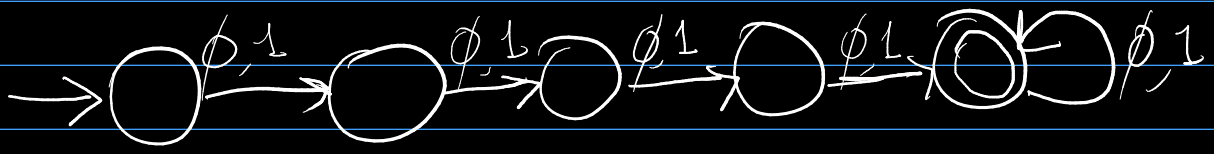
4.e) "Cadenas terminadas en 0^2 o 1^2"



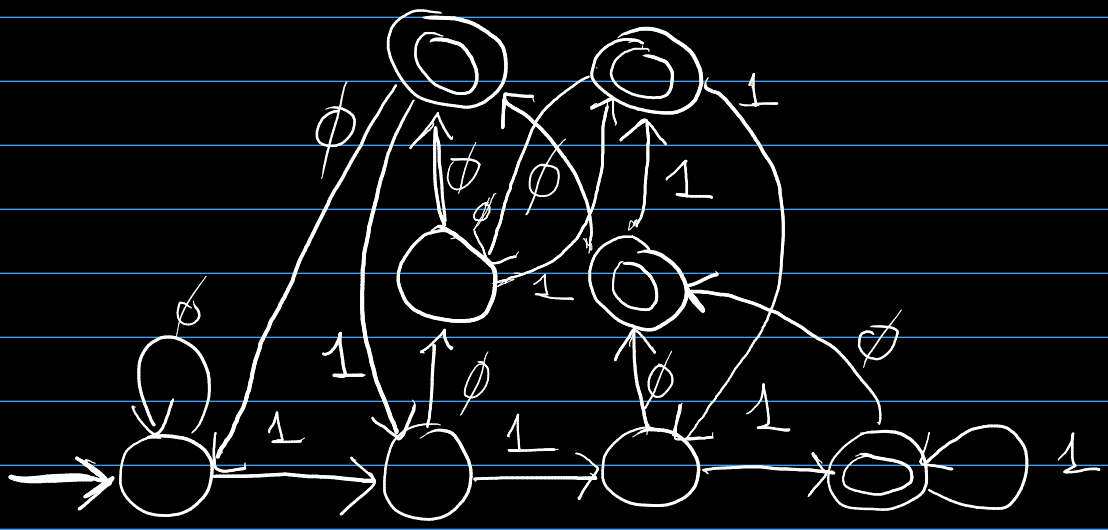
4.f) "Cadenas con 1^{2n} y 0^{2m}"



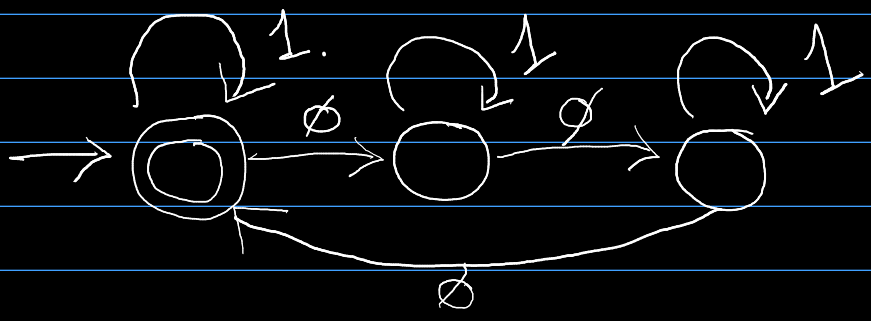
4.g) "Cadenas de longitud ≥ 4"



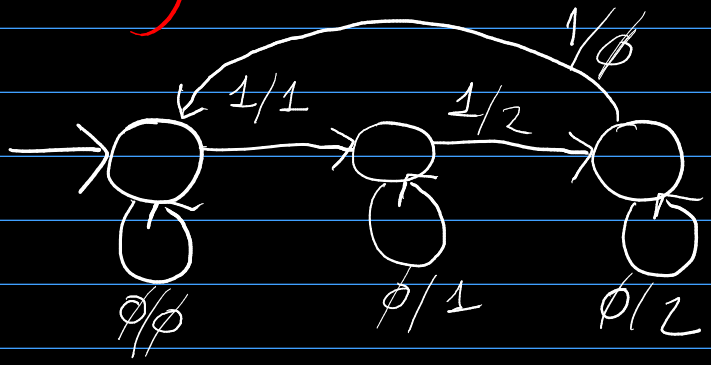
4.h) "Cadenas 1 en la antepenúltima pos."



4.i) cc Cadenas de la forma 0^{3n+1}



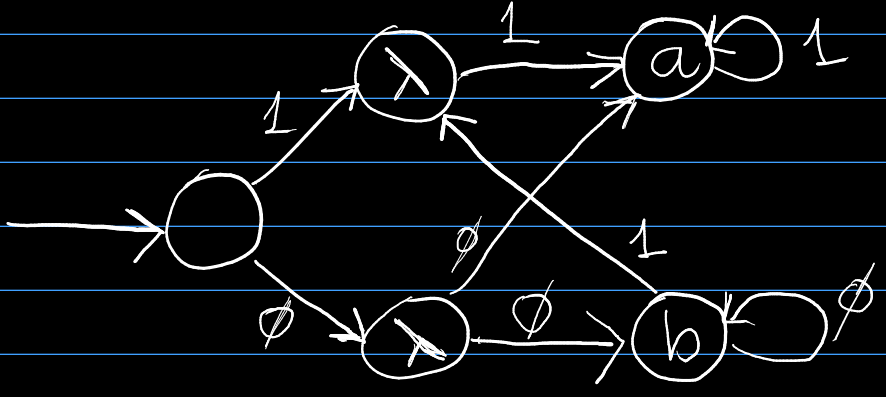
5.a) #1 mod 3



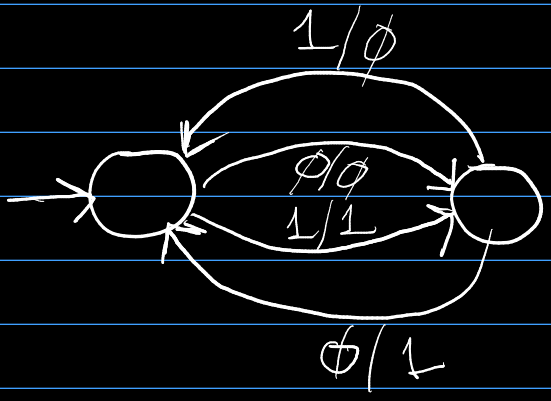
$\Sigma_e = \{0, 1\}$

$\Sigma_s = \{0, 1, 2\}$

5.b) $1^2 \rightarrow a$; $0^2 \rightarrow b$



5.c) $0 \to 1$; $1 \to 0$ posición par.



5.d) $0^2, 1^2 \to s$; $x \to n$