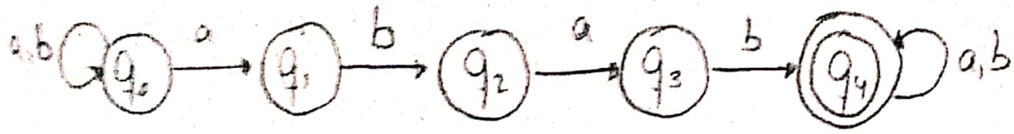
29)

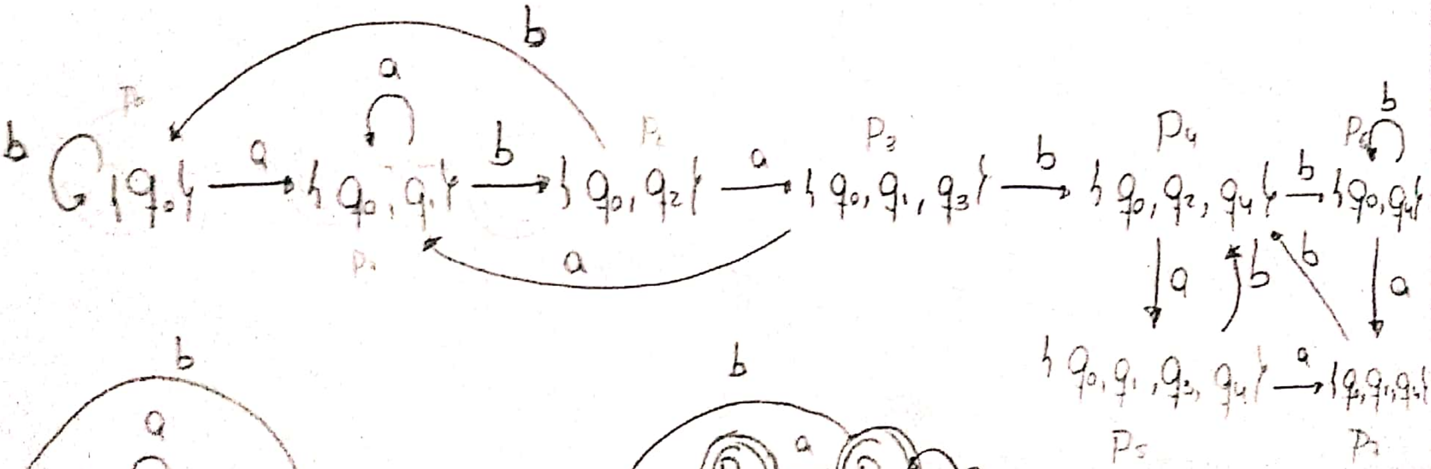
$L_1 = \{u \in \{0,1\}^* : u$ no contiene la subcadena 'abab'$\}$

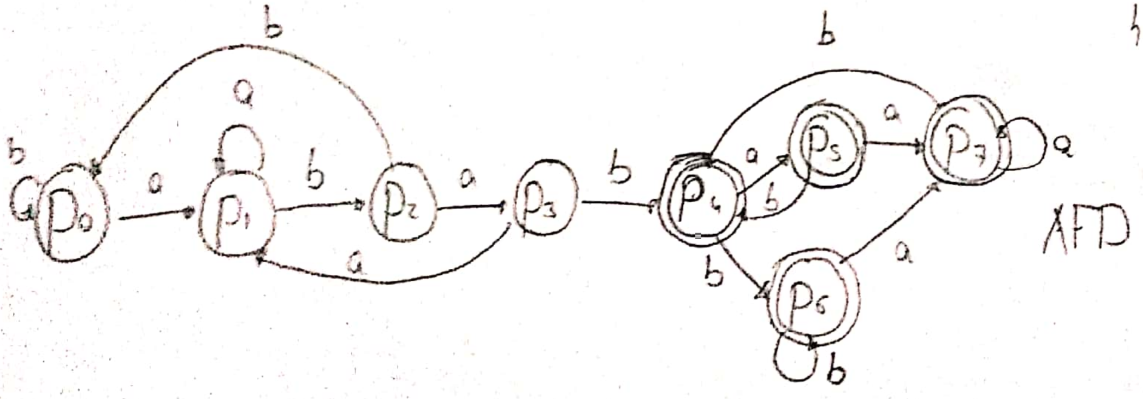
Busco el autómata que asegura que abab pertenece al menos 1 vez



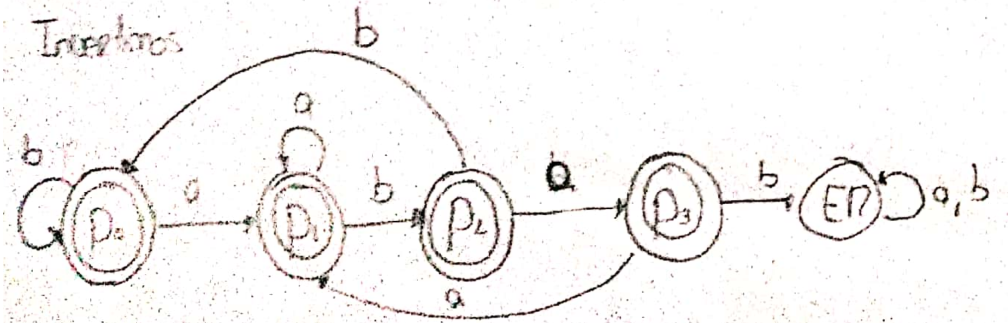
Este autómata solo acepta palabras uababw con $u, w \in \{a,b\}^*$, luego toda palabra aceptada por el autómata contiene abab al menos una vez

Convierto este a determinista (añadiendo un estado de error y lo invierto)





Invertimos



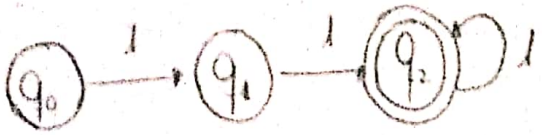
(llamaré 0 a a y 1 a b)

Sería el ~~lenguaje~~ autómata que acepta L_1

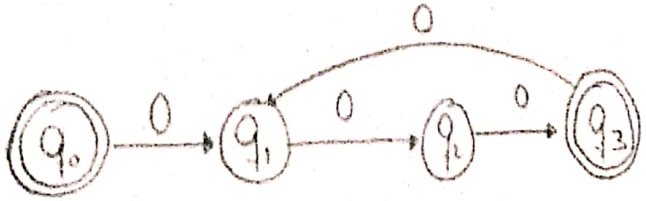
$L_2 = \{0^i 1^j 0^k : i \geq 1, k \geq 0, i \text{ impar}, k \text{ múltiplo de } 3 \text{ y } j \geq 2\}$

L_{21} Autómata

L_{22} Autómata

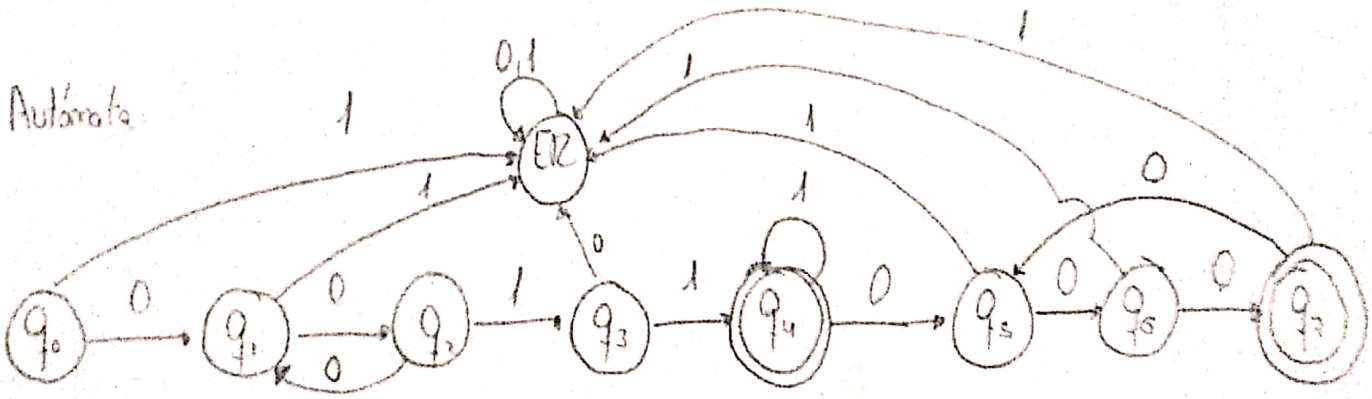


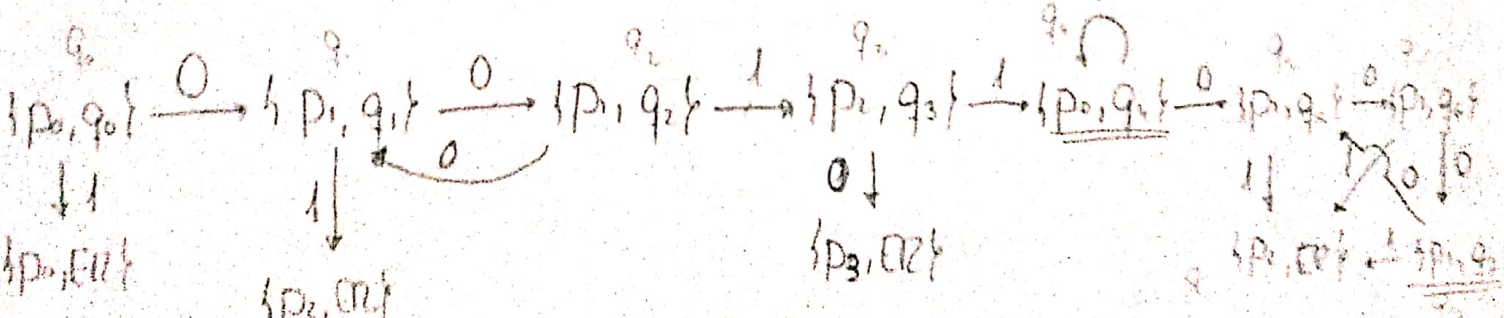
L_{23}

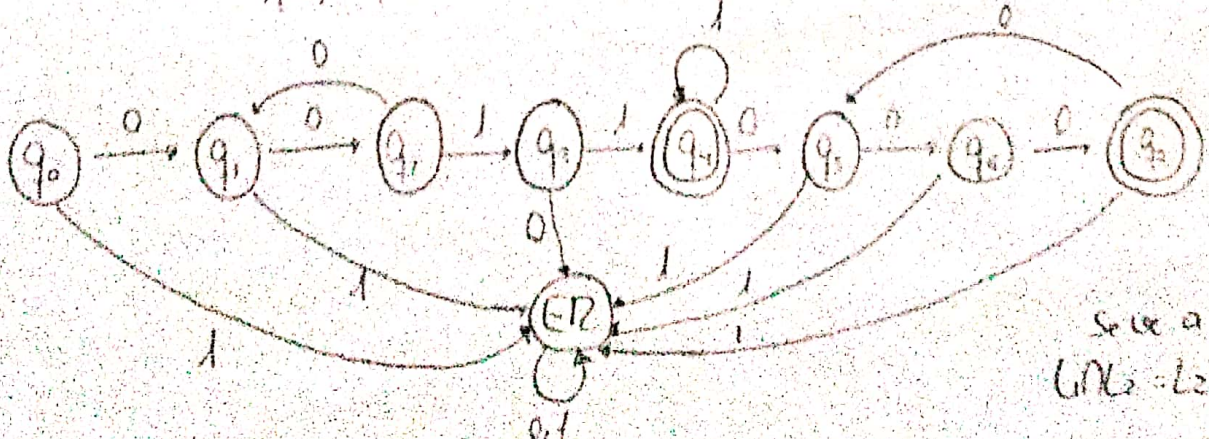


Es Gratis

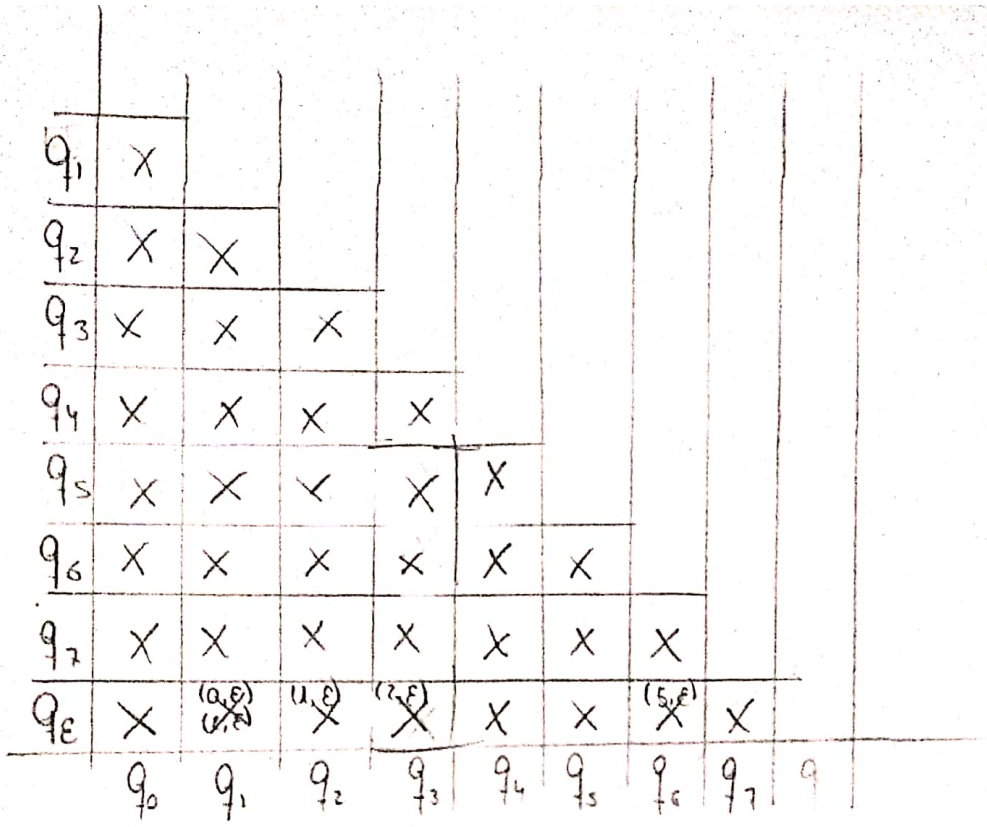
L_2 Autómata







Se ve a simple vista que $L(N_2) = L_2$



	0	1
q_0	q_1	q_ε
q_1	q_2	q_ε
q_2	q_1	q_3
q_3	q_ε	q_4
q_4	q_5	q_4
q_5	q_6	q_ε
q_6	q_7	q_ε
q_7	q_5	q_ε

El autómata es mínimo.