

Problema 1

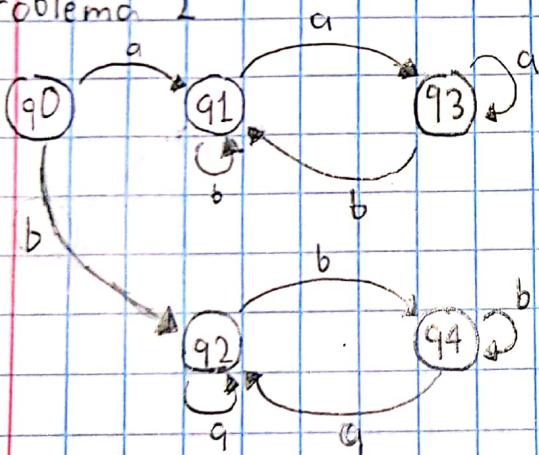
1: $L_1 = \{w \in \{a,b\}^* \mid w \text{ begins and ends with the same symbol}\}$

$L_1 = \{\epsilon, a, b, aa, bb, aqa, bbb, aba, bab, aaaa, bbbb, abab, bbab, \dots\}$

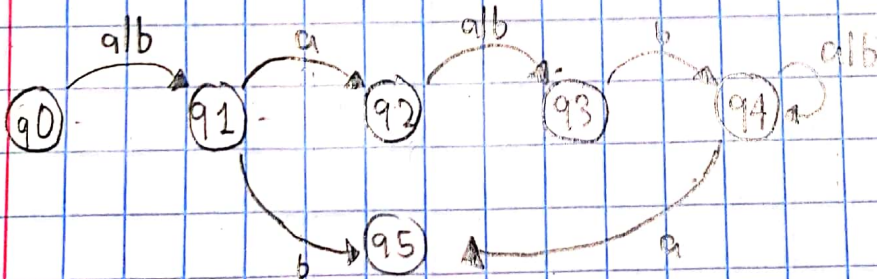
2: $L_2 = \{w \in \{a,b\}^* \mid w \text{ has an } a \text{ in the second position and } b \text{ in the fourth}\}$

$L_2 = \{aqa, baq, aabb, babb\}$

Problema 2



$(a|b)^*a(a|b)^*b$



$(a|b)a(a|b)b(a|b)^*$