

Exercício 08

Matheus Barbosa Souza, 5º Período

1 - Considere as seguintes linguagens:

$$L1 = \{w \in \{a, b, c\}^* \mid w \text{ começa com } ac \text{ e termina com } aa\}.$$

$$L2 = \{w \in \{a, b, c\}^* \mid |w| > 5\}.$$

2 - Escreva as linguagens abaixo:

$$L5 = L1 \cup L2 = \{w \in \{a, b, c\}^* \mid w \text{ começa com } ac \text{ e termina com } aa \text{ ou } |w| > 5\}.$$

$$L6 = L1 \circ L2 = \{w.v \in \{a, b, c\}^* \mid |w| > 5 \text{ e } v \text{ começa com } ac \text{ e termina com } aa\}.$$

$$L7 = L1^* = \{w1.w2.w3...wn \in \{a, b, c\}^* \mid \text{cada } w \text{ começa com } ac \text{ e termina com } aa\}.$$

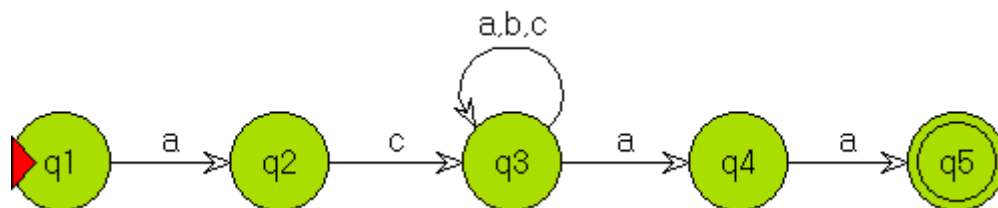
$$L8 = L2' = \{w \in \{a, b, c\}^* \mid |w| < 5\}.$$

$$L9 = L1 \cap L2 = \{w \in \{a, b, c\}^* \mid |w| > 5 \text{ e começa com } ac \text{ e termina com } aa\}.$$

$$L10 = L1 - L2 = \{w \in \{a, b, c\}^* \mid w \text{ começa com } ac \text{ e termina com } aa \text{ e } |w| \leq 5\}.$$

3 - Desenhe o autômato NFA para: $L1$, $L2$, $L5$, $L6$ e $L7$;

$L1$:



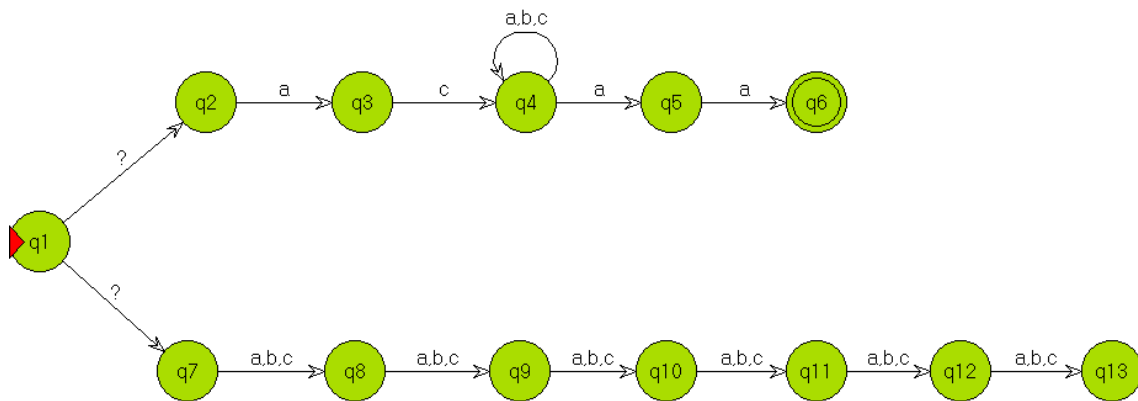
$L2$:



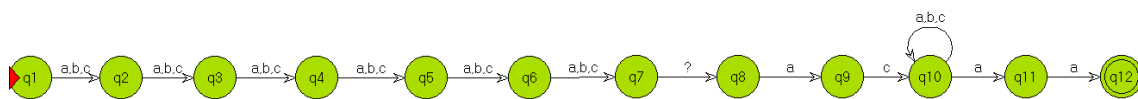
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L5:



L6:



L7:

