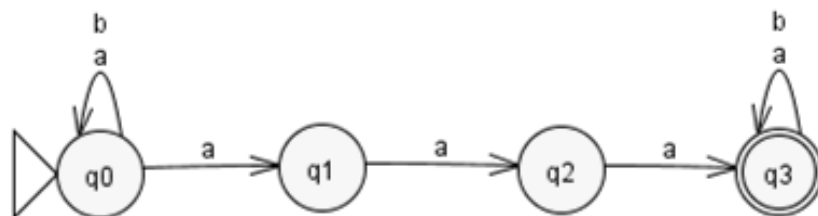


UNIVERSIDADE DO VALE DO ITAJAÍ
CURSO DE CIÊNCIA DA COMPUTAÇÃO
DISCIPLINA DE LINGUAGENS FORMAIS E AUTÔMATOS
PROFESSOR: ALEX LUCIANO ROESLER RESE, MSc.

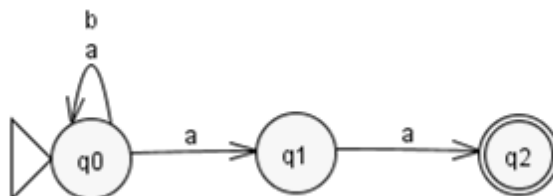
Lista de Exercícios 5

1. Desenvolva as gramáticas regulares a partir dos seguintes autômatos. Alfabeto $\Sigma = \{a, b\}$

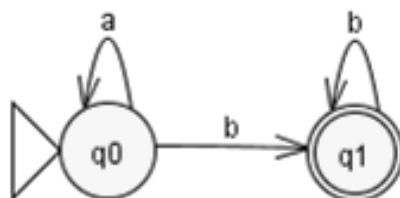
a)



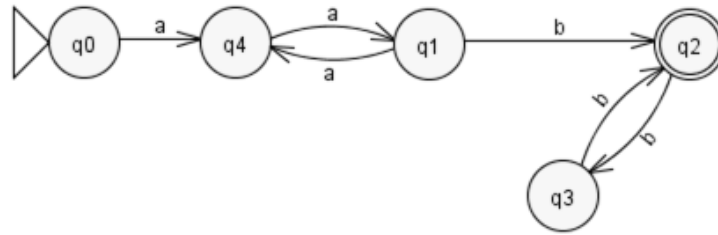
b)



c)



d)



2. Dada as gramáticas regulares, desenvolva os autômatos correspondentes.

a.

$$S \rightarrow aB \mid cB \mid xZ$$

$$B \rightarrow a \mid aB$$

$$Z \rightarrow z \mid xZ$$

b.

$$S \rightarrow aS \mid bX \mid \epsilon$$

$$X \rightarrow bS$$

c.

$$S \rightarrow 0A \mid A$$

$$A \rightarrow 1A \mid 0A \mid \epsilon$$

d.

$$S \rightarrow aA \mid bB \mid \epsilon$$

$$A \rightarrow aS \mid \epsilon$$

$$B \rightarrow bS \mid \epsilon$$

e.

$$S \rightarrow aB$$

$$B \rightarrow aA \mid b$$

$$A \rightarrow bB \mid \epsilon$$