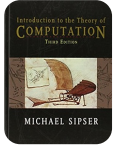


Ciências / Ciência da computação / Introduction to the Theory of Computation (3rd Edition)

## Exercício 24

Capítulo 1, Página 87



Introduction to the Theory of Computation

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**Solução**



Certificado

**Passo 1**

1 de 3

Starting from initial state, we follow the arrow whose first label corresponds to next input symbol, and write down the second label of that arrow.

**Part a.**

- \* Sequence of states:  $q_1, q_1, q_1, q_1$
- \* Output:  $\texttt{000}$

**Part b.**

- \* Sequence of states:  $q_1, q_2, q_2, q_2$
- \* Output:  $\texttt{111}$

**Part c.**

- \* Sequence of states:  $q_1, q_1, q_2, q_2$
- \* Output:  $\texttt{011}$

**Part d.**

- \* Sequence of states:  $q_1, q_1, q_2, q_1, q_2$
- \* Output:  $\texttt{0101}$

**Part e.**

- \* Sequence of states:  $q_1, q_3$
- \* Output:  $\texttt{1}$

**Part f.**

- \* Sequence of states:  $q_1, q_3, q_2, q_3, q_2$
- \* Output:  $\texttt{1111}$

**Passo 2**

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**Part g.**

- \* Sequence of states:  $q_1, q_3, q_2, q_1, q_3, q_2, q_1$
- \* Output:  $\texttt{110110}$

**Part h.**

- \* Sequence of states:  $q_1$
- \* Output:  $\epsilon$

**Resultado**

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Starting from initial state, we follow the arrow whose first label corresponds to next input symbol, and write down the second label of that arrow.

[< Exercício 23](#)**Avaliar esta solução**[Exercício 25 >](#)