# Exercício 3

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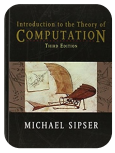


Introduction to the Theory of Computation

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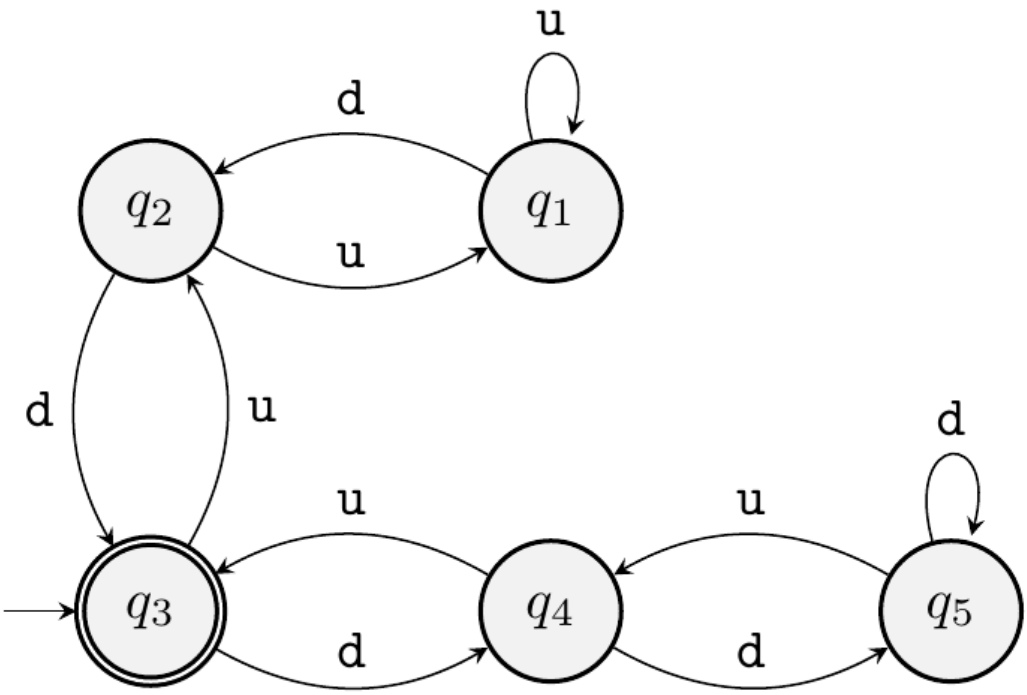
**Solução** Certificado

**Passo 1** 1 de 2

What does this formal description tell us about the machine? First, we see that it has $5$ states, so there will be $5$ circles on the diagram. Secondly, we see that alphabet of this machine is $\Sigma = \{\mathbf{u}, \mathbf{d}\}$, which is cute little alphabet. This means we shall see letters $\mathbf{u}$ and $\mathbf{d}$ appearing on edges of our diagram. Leaving $\delta$ be for a moment, we see that state $q_3$ is the start state, surprisingly enough. Even more strangely, it is also the only accepting state! Well, this is allowed, so why not?

Ah, here comes $\delta$ finally, given in a table. Nothing scary, this actually helps us to put arrows in the right direction, and moreover, assign appropriate letters to corresponding edges. For example, the first row says there are arrows from state $q_0$ going to state $q_1$ and to state $q_2$ with letters $u$ and $v$ respectively.

The diagram is here:




**Resultado** 2 de 2

We unpack the formal defintion and draw the diagram.

‹ Exercício 2

Avaliar esta solução

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Exercício 4 ›