

Atividade 04 - Máquina de Turing

1-

a) $Q = \{q_{\text{inicio}}, q_{\text{p1}}, q_{\text{p2}}, q_{\text{ok}}, q_{\text{fim}}\}$

b) $\delta =$

q_{inicio} (#1)

| | |
|-------------------------------|---------------------------------------|
| (q_{inicio}, a) | $(a, q_{\text{p1}}, \rightarrow)$ |
| (q_{inicio}, b) | $(b, q_{\text{inicio}}, \rightarrow)$ |
| $(q_{\text{inicio}}, \sqcup)$ | $(\sqcup, q_{\text{fim}}, -)$ |

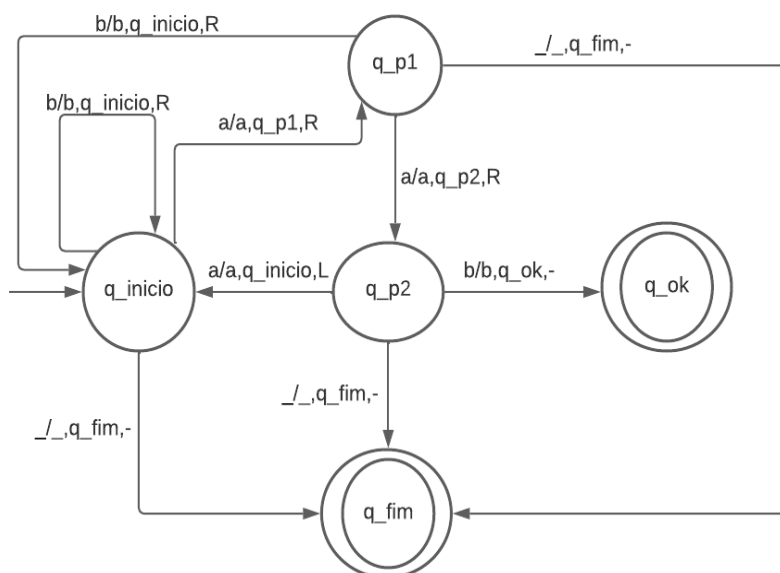
q_{p1} (#2)

| | |
|---------------------------|---------------------------------------|
| (q_{p1}, a) | $(a, q_{\text{p2}}, \rightarrow)$ |
| (q_{p1}, b) | $(b, q_{\text{inicio}}, \rightarrow)$ |
| (q_{p1}, \sqcup) | $(\sqcup, q_{\text{fim}}, -)$ |

q_{p2} (#3)

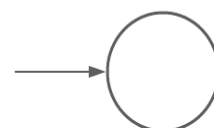
| | |
|---------------------------|--------------------------------------|
| (q_{p2}, a) | $(a, q_{\text{inicio}}, \leftarrow)$ |
| (q_{p2}, b) | $(b, q_{\text{ok}}, -)$ |
| (q_{p2}, \sqcup) | $(\sqcup, q_{\text{fim}}, -)$ |

c)

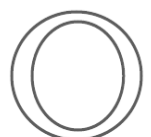


REPRESENTAÇÕES

ESTADO INICIAL



ESTADO FINAL



d) <http://turingmachinesimulator.com/shared/npvhyiaghi>

2-

a) $Q = \{q_{\text{inicio}}, q_{\text{p1}}, q_{\text{p2}}, q_{\text{copia}}, q_{\text{volta}}, q_{\text{ok}}, q_{\text{fim}}\}$

b) $\delta =$

q_inicio (#1)

| | |
|-----------------------|------------------------|
| (q_inicio, a) | (a, q_p1, ->) |
| (q_inicio, b) | (b, q_inicio, ->) |
| (q_inicio, \sqcup) | (\sqcup , q_fim, -) |

q_p1 (#2)

| | |
|-------------------|------------------------|
| (q_p1, a) | (a, q_p2, <-) |
| (q_p1, b) | (b, q_inicio, ->) |
| (q_p1, \sqcup) | (\sqcup , q_fim, -) |

q_p2 (#3)

| | |
|-------------------|---------------------------|
| (q_p2, a) | (\sqcup , q_copia, <-) |
| (q_p2, b) | (b, q_ok, -) |
| (q_p2, \sqcup) | (\sqcup , q_fim, -) |

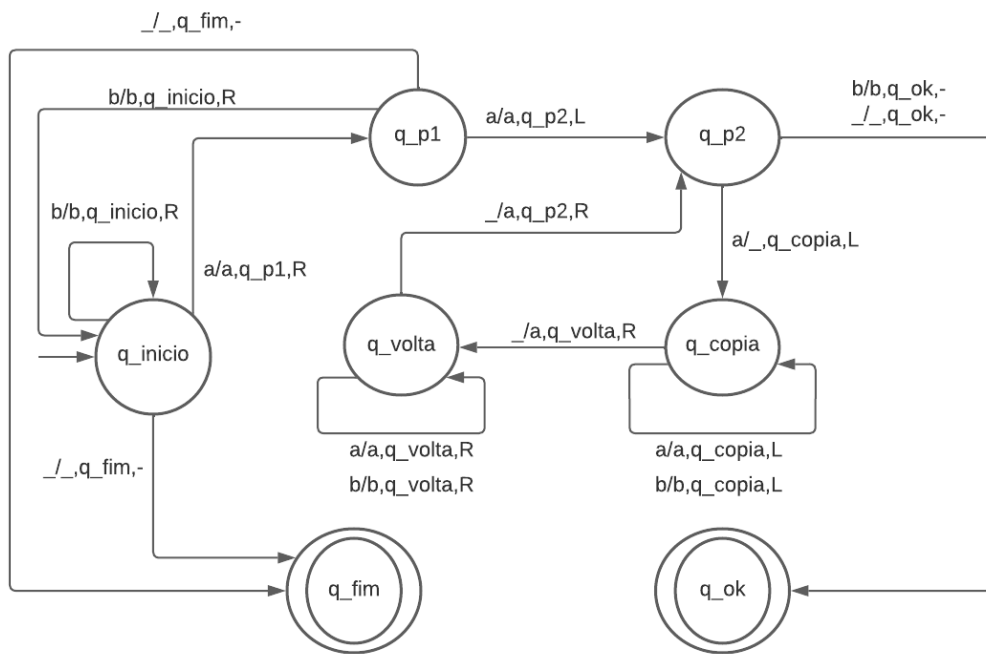
q_copia (#4)

| | |
|----------------------|------------------|
| (q_copia, a) | (a, q_copia, <-) |
| (q_copia, b) | (b, q_copia, <-) |
| (q_copia, \sqcup) | (a, q_volta, ->) |

q_volta (#5)

| | |
|----------------------|------------------|
| (q_volta, a) | (a, q_volta, ->) |
| (q_volta, b) | (b, q_volta, ->) |
| (q_volta, \sqcup) | (a, q_p2, ->) |

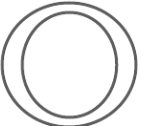
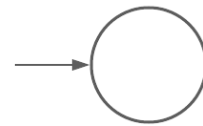
c)



REPRESENTAÇÕES

ESTADO INICIAL

ESTADO FINAL



d) <http://turingmachinesimulator.com/shared/jifbudarsk>