2DFA for a^*

$(Q, \Sigma, \vdash, \dashv, \delta, s, t, r)$ where,

- $Q = \{q_0, q_1, q_2\}$
- $\Sigma = \{a, b\}$
- s = start state = q_0
- t = accept state = q_1
- r = reject state = q_2

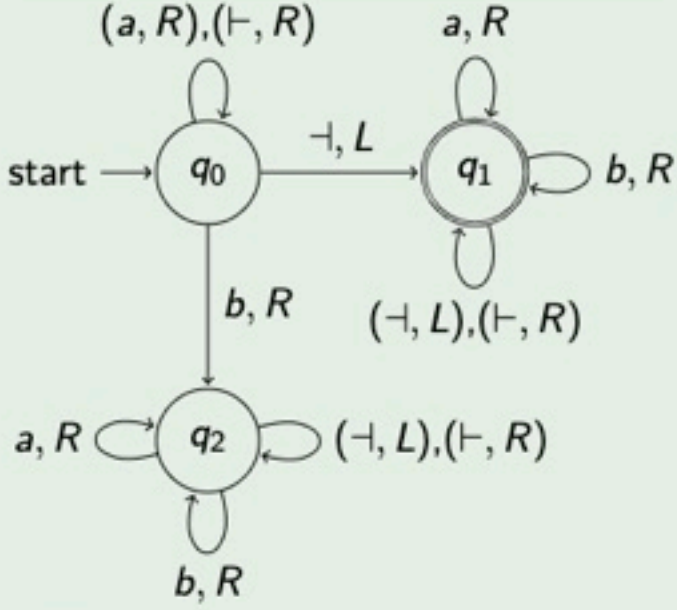

Table: Transition function δ

$\delta(,)$	$\vdash$	a	b	$\dashv$
q_0	(q_0, R)	(q_0, R)	(q_2, R)	(q_1, L)
q_1	(q_1, R)	(q_1, R)	(q_1, R)	(q_1, L)
q_2	(q_2, R)	(q_2, R)	(q_2, R)	(q_2, L)