

Language Accepting TM

is a turing machine that's normally
in a specific type of state called
a final states

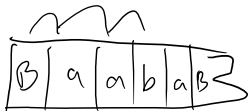
$$F \subseteq Q$$

$$M_{LA} = (Q, \Sigma, \Gamma, \delta, q_0, F)$$

\bar{F} set of final states



accepted



or-notation example (script)

$(a \cup b)^*$ a a $(a \cup b)^*$

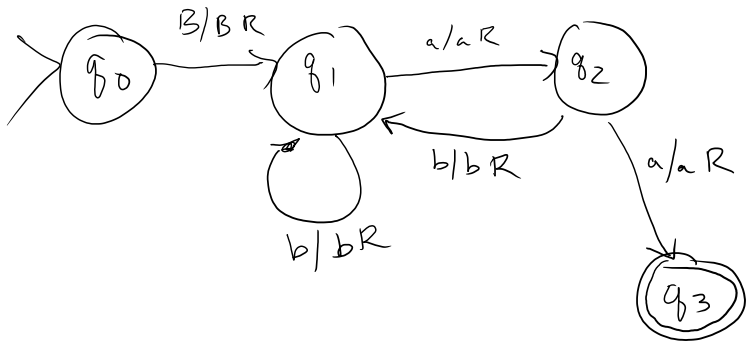
$\Sigma = \{a, b\}$

Accepted

aa
aaa
aaaa
baab

\uparrow 0, or many

$(a \cup b)^*$ aa
aa



sr-notation example
(script)

complexity

$O(n)$ where

n is the length
of the input string.