

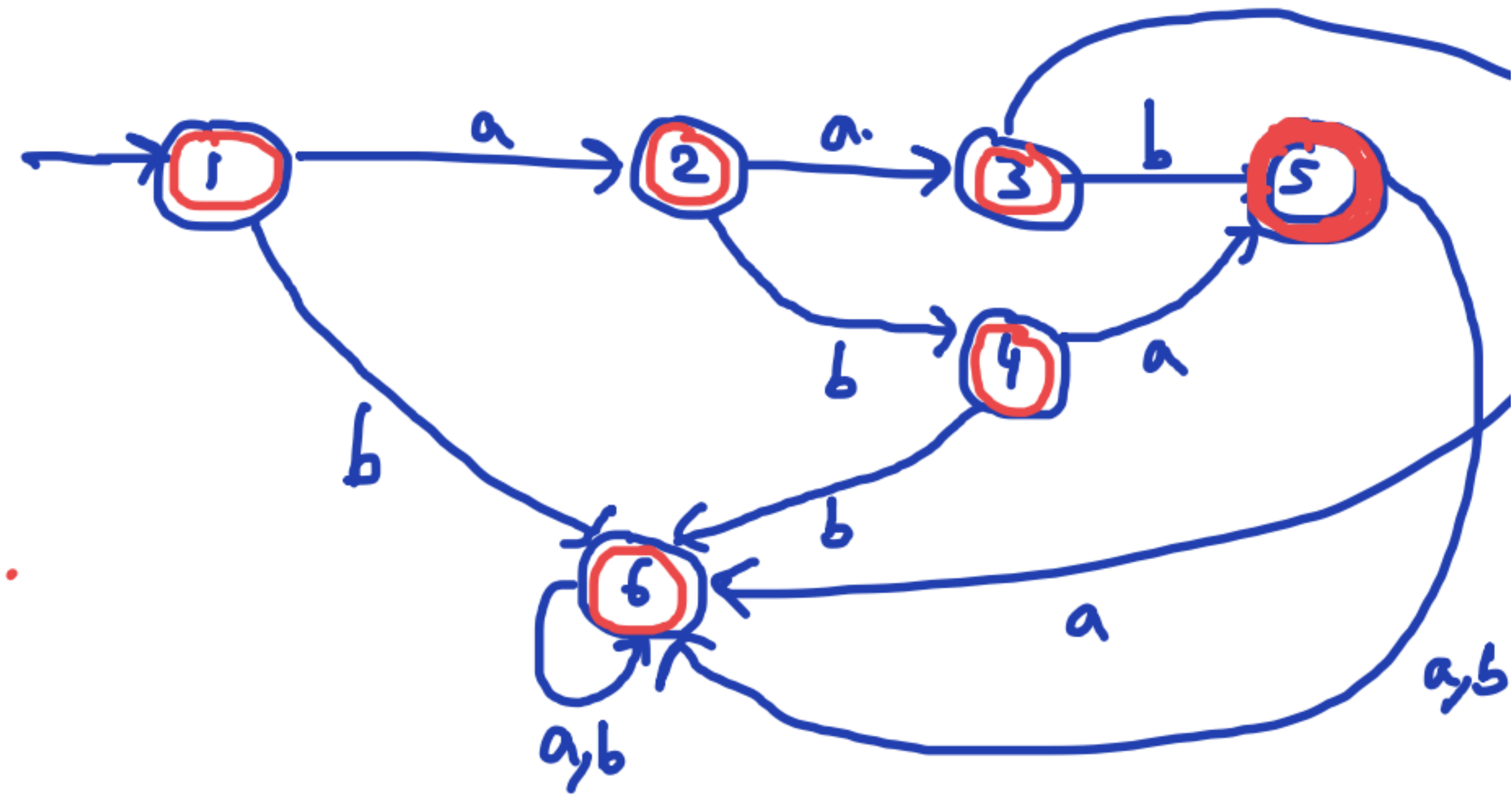
$\Sigma = \{a, b\}$ $L = \{ \underline{aab}, \underline{aba} \}$

finite language

Specialize

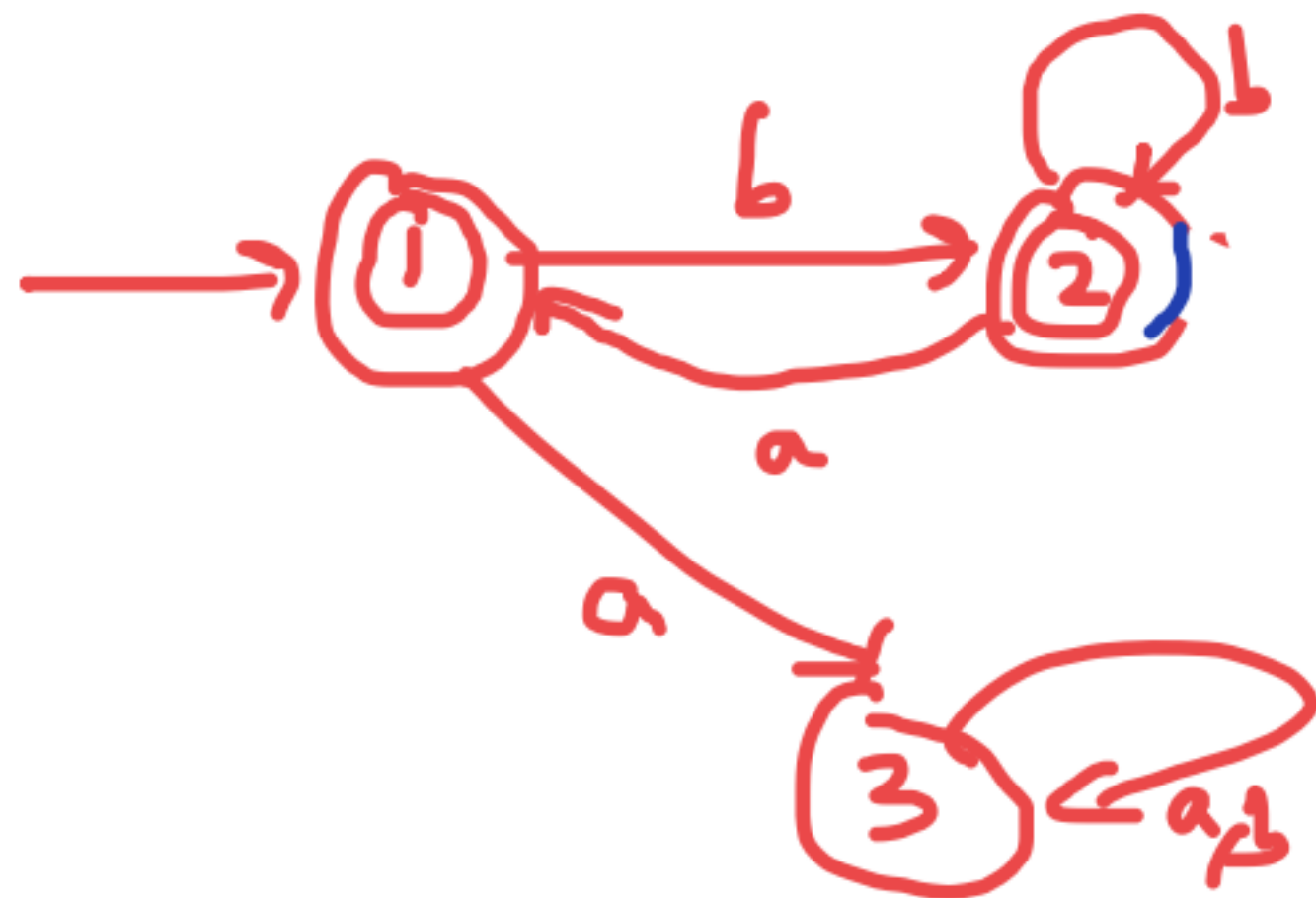


↓
DFA



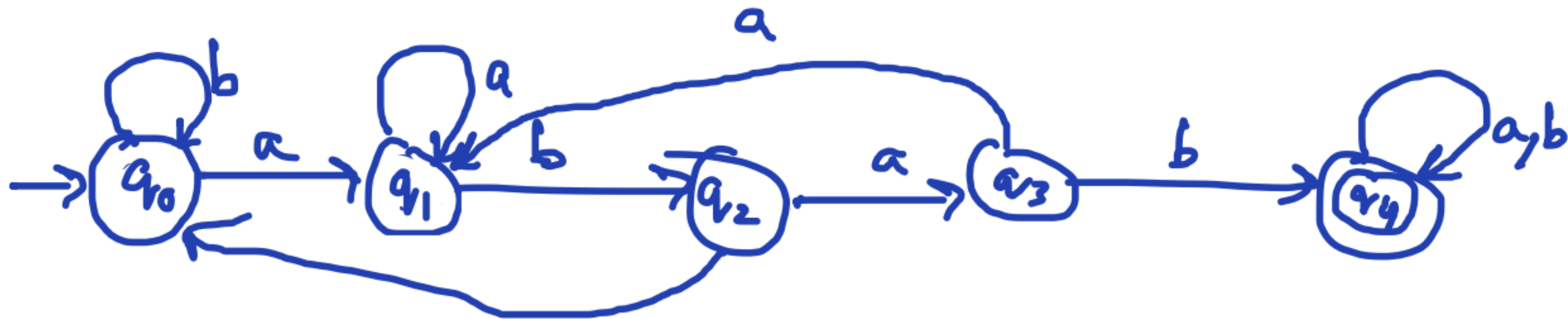
$L = \{ w \mid w \in \{a,b\}^* \text{ and } w \neq \underline{aba} \text{ and } w \neq \underline{aab} \}$

aa
 ab
 ba
 bb
 aaa
 aab
 aba
 abb
 bba
 bba
 bbb



$L = \{ \underline{abab}, \underline{b} \underline{abab}, b \underline{b} \underline{abab} \}$

abab



$\frac{a}{q_1}$ $\frac{b}{q_0}$ b

q₀
q₁
q₂
q₃

HW

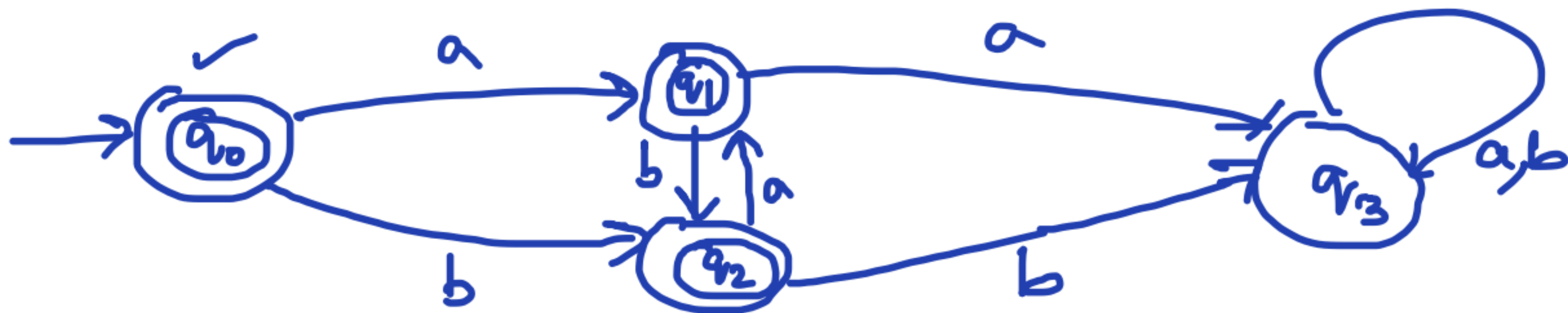
ab

{occurrence of 'ab'}

babbb
✓ abbbab

[doesn't give as a string as a string]

$$L = \{ \epsilon, a, b, ab, ba, aba, bab, \dots \}$$



$L = \{ \text{abba} \}$

$\{ \text{aba}, \text{bab} \}$

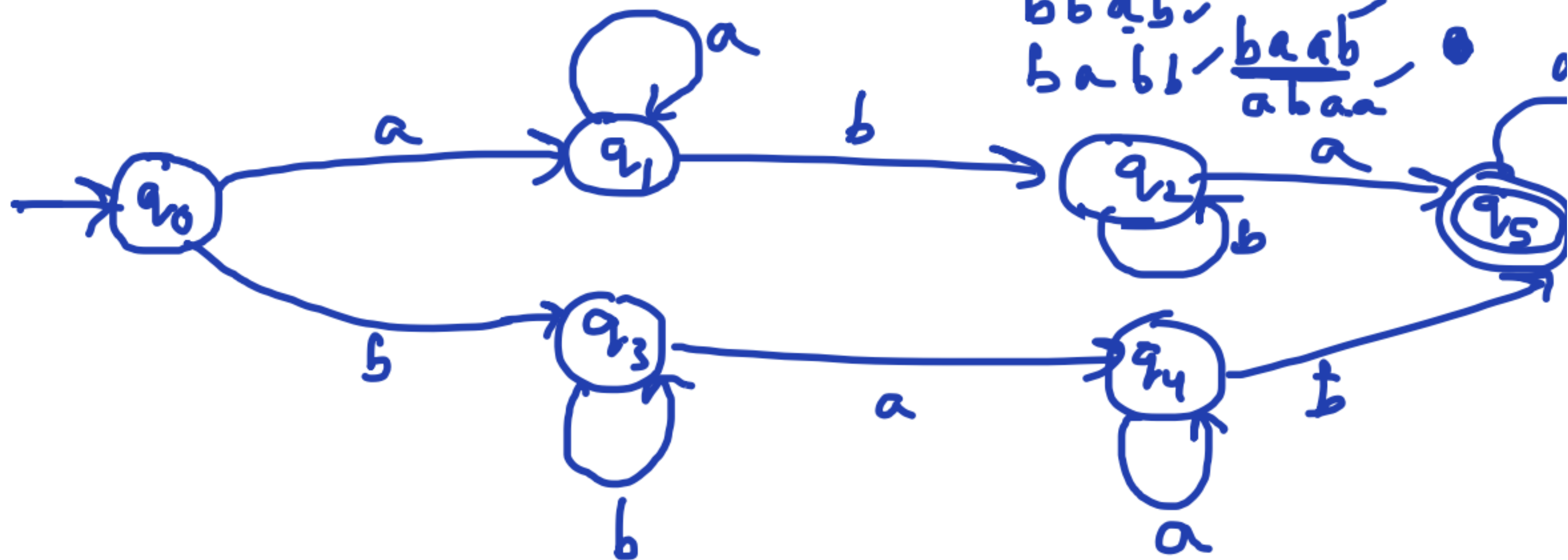
abba ✓
 aaba ✓
 babaa ✓
 abab ✓
 bbab ✓
 babb ✓

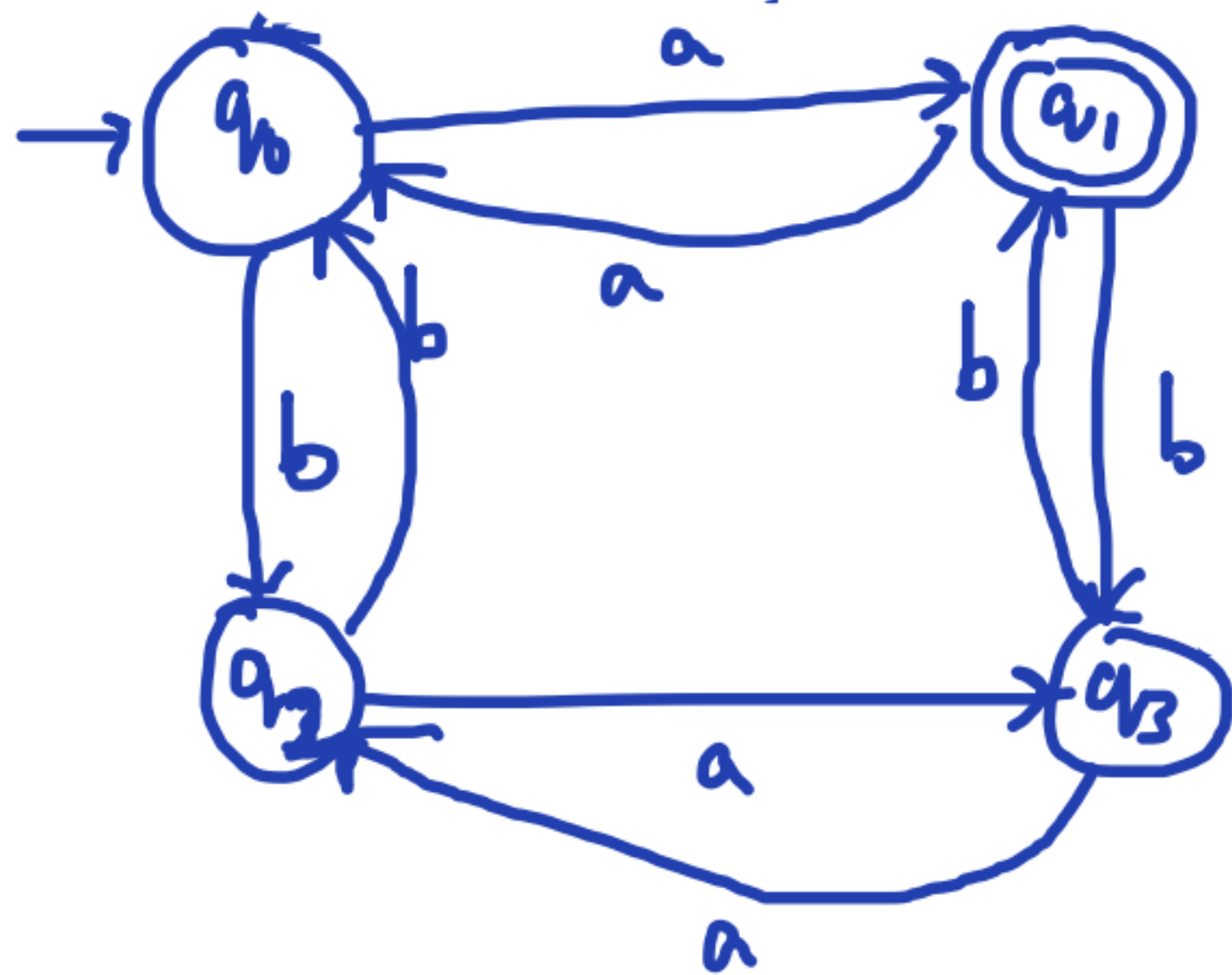
aabab ✓
 aabba ✓
 a

bbba

baab

baab ✓
 aaba ✓





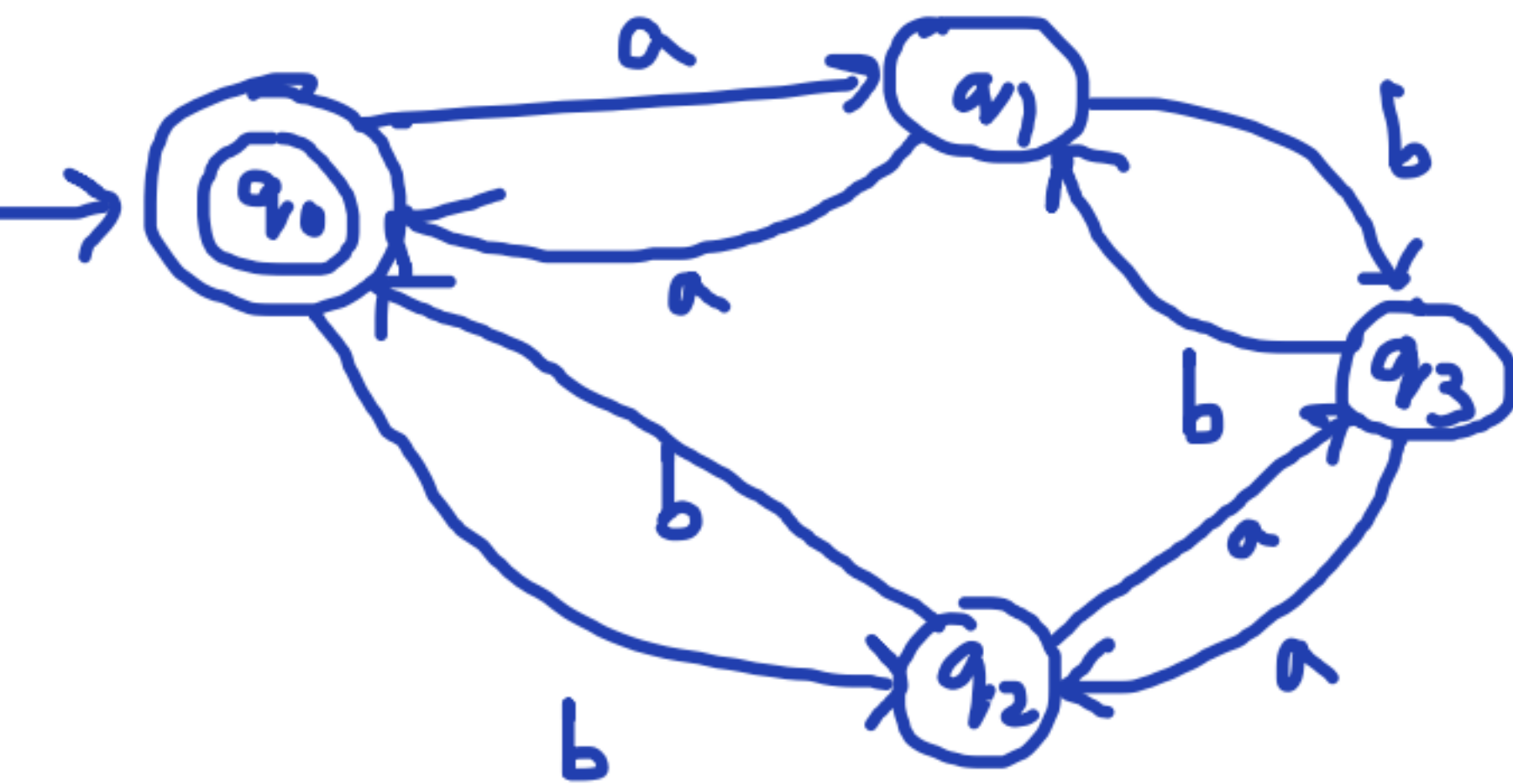
$\{a, abb, bab, bba, aaa, \dots\}$

by

$\frac{aab}{aba}$
 \vdots

$> \underline{a}b\underline{a}b$

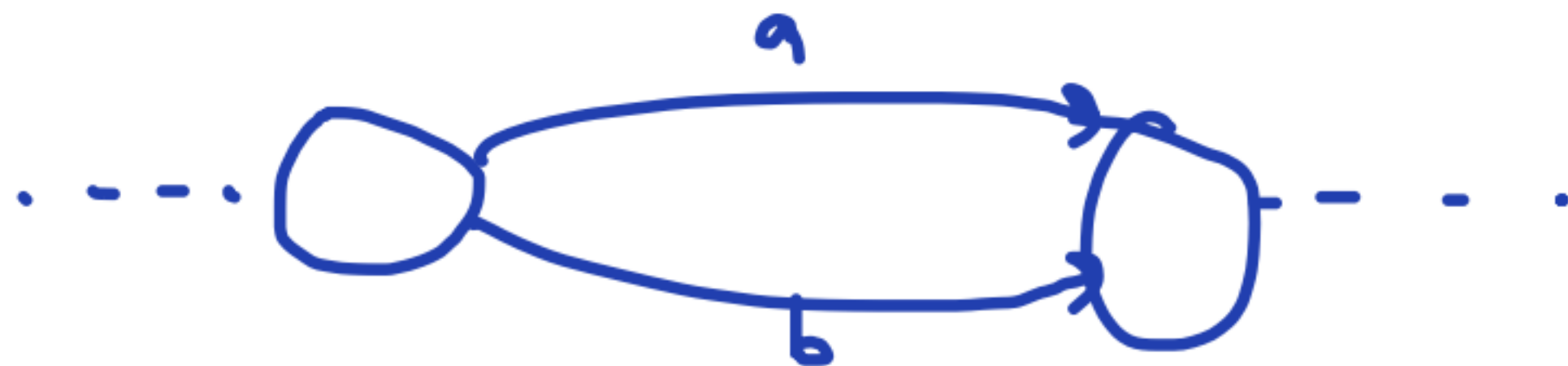
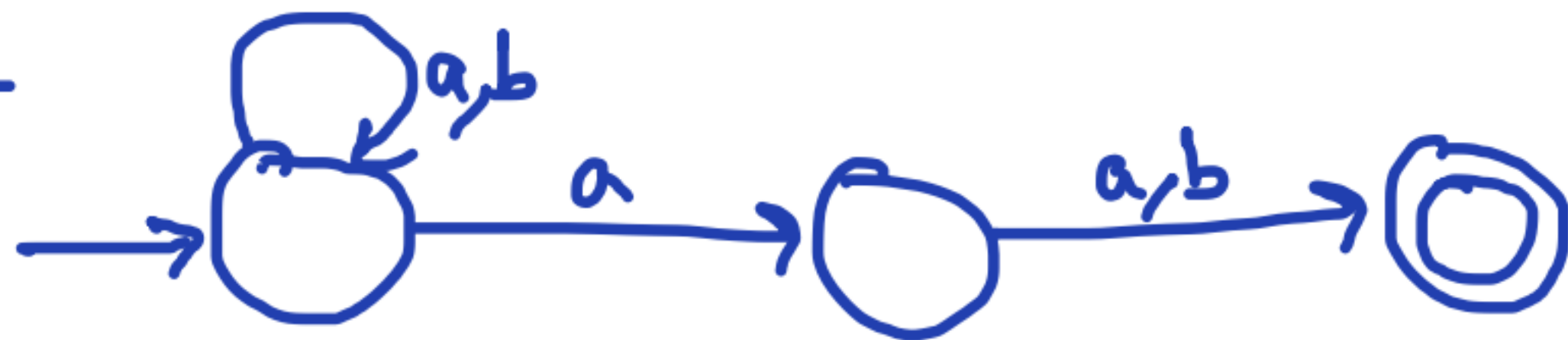
~~\rightarrow~~ $aabab$

$$\{ \epsilon, \underline{aa}, \underline{bb}, \underline{aaaa}, \underline{bbbb}, \overset{\checkmark}{\underline{abab}}, \overset{\checkmark}{\underline{aabb}}, \underline{baba}, \underline{abba}, \dots \}$$


ababab

$$q_0 \xrightarrow{a} q_1 \xrightarrow{a} q_0 \xrightarrow{b}$$
$$\begin{array}{c} \xrightarrow{a} \sqrt{3} \xrightarrow{a} q \\ \xrightarrow{b} q \end{array}$$

Second last letter should be 'a'



$L_{\text{star}}(L, 4)$

~~$\{0, 01\}^*$~~

EVEN-EVEN

N
EVEN $L = \{\epsilon, 00, 11, 0000, \dots\}$

$L^* = \{\epsilon, 00, 11, 0000, \dots\}$

