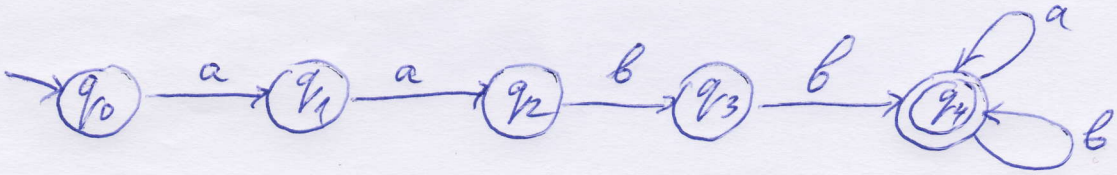
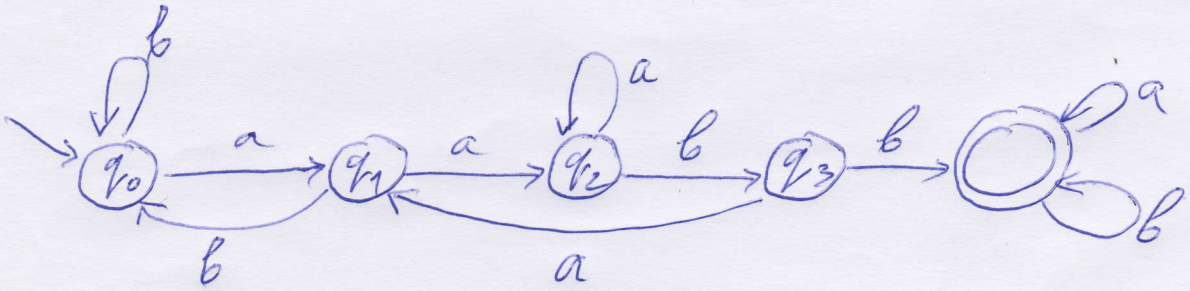
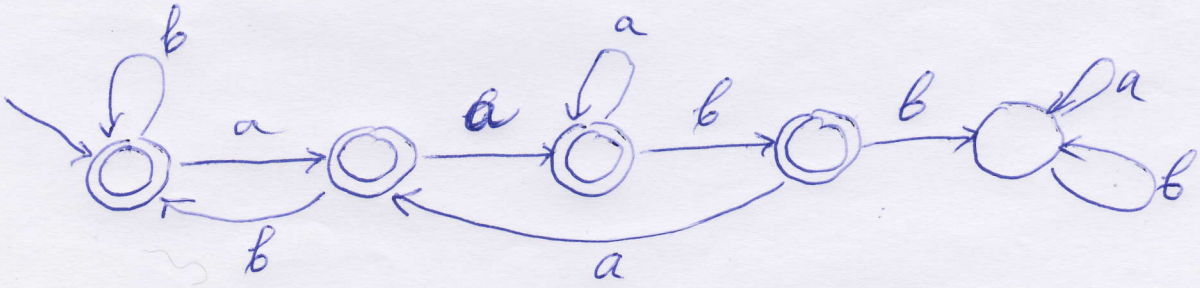
Да се построи ДКА, който разпознава всички низове над азбуката $V = \{a, b\}$, които <u>не съдържат</u> като подниз $aabb$.

Да построим отначало автомат, който разпознава низовете, съдържащи $aabb$



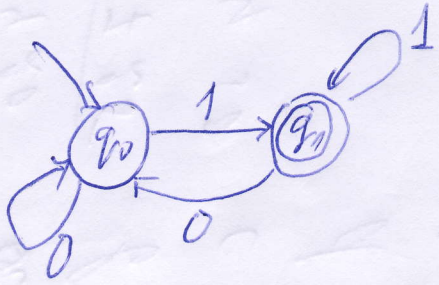




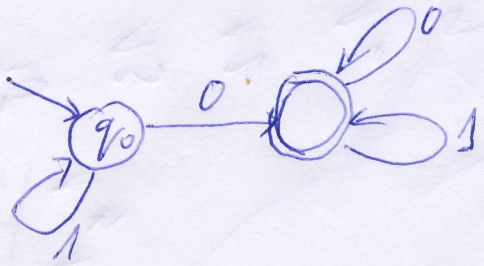
$V = \{0, 1\}$

1) Завършващи с 1
2) Съдържащи 0
3) Започващи с 10
4) Съдържащи 01
5) Завършващи с 11
6) Започващи с 0

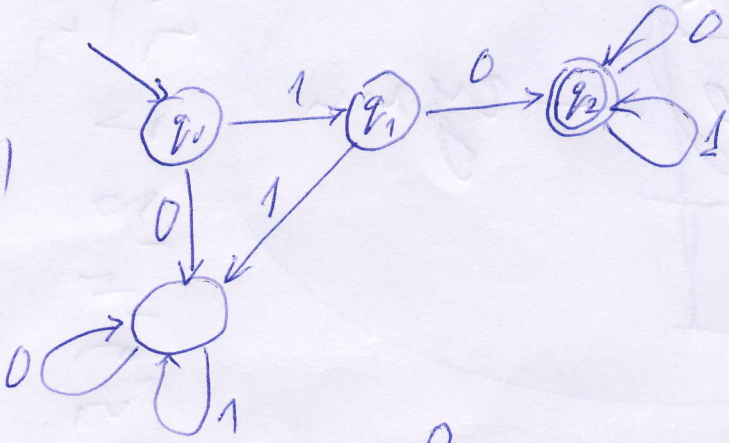
1)


q_0
q_1
1
1
0
0
0

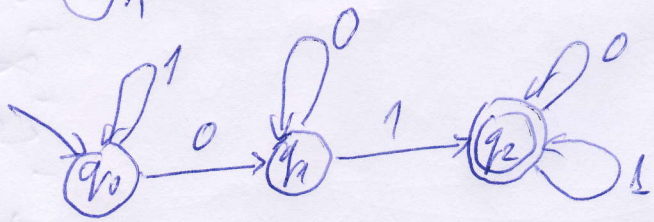
2)


q_0
0
0
1
1

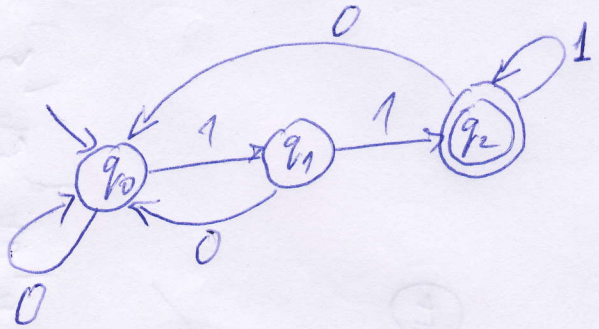
3)


q_0
q_1
q_2
1
0
0
1
1
0
1

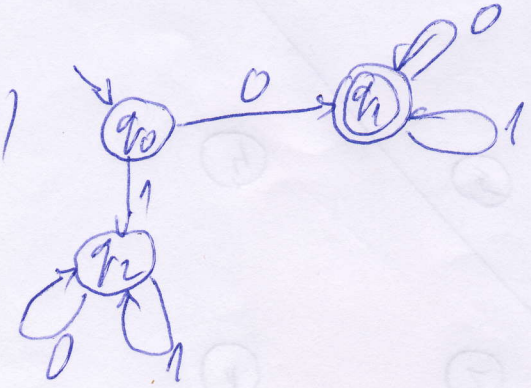
4)


q_0
q_1
q_2
1
0
0
0
1
1

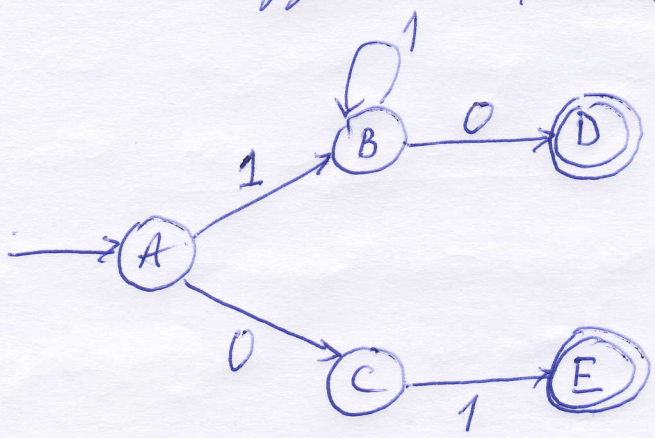
5)


q_0
q_1
q_2
0
1
1
1
0
0

6)


q_0
q_1
q_2
0
0
1
1
0
1

Кои са думите, разпознавани от автомата?



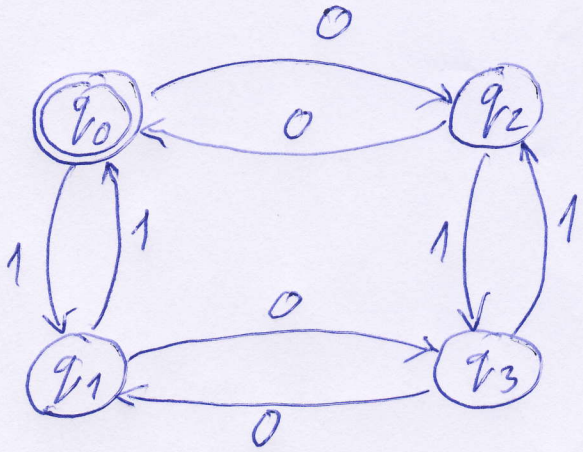
10 - да

$\underbrace{1}_{A}\underbrace{11\ldots1}_{B}\underbrace{0}_{D}$ - да

$L = \{01 \cup 1^+0\}$

001, 010, 011, 1101, 1100 $\notin L$

Кои са думите, разпознавани от автомата?



1) $L = \{a^n b \mid n \geqslant 0\}$

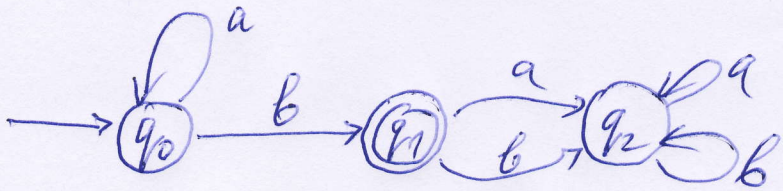
2) $L = \{a^n b \mid n \geqslant 1\}$

3) $L = \{a^m b^n \mid m, n \geqslant 1\}$

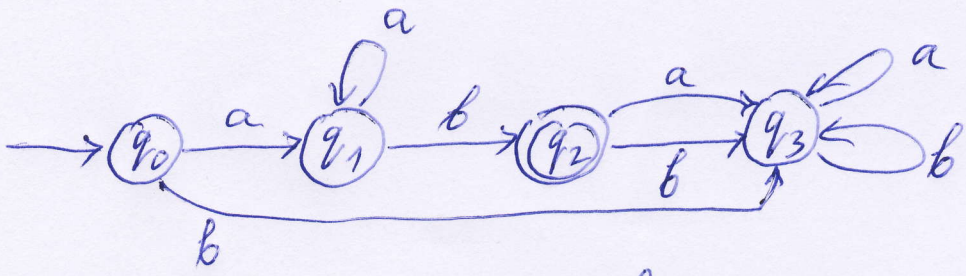
4) $L = \{a^k b^m c^n \mid k, m, n \geqslant 0$

5) $L = \{(abc)^n \mid n \geqslant 0\}$

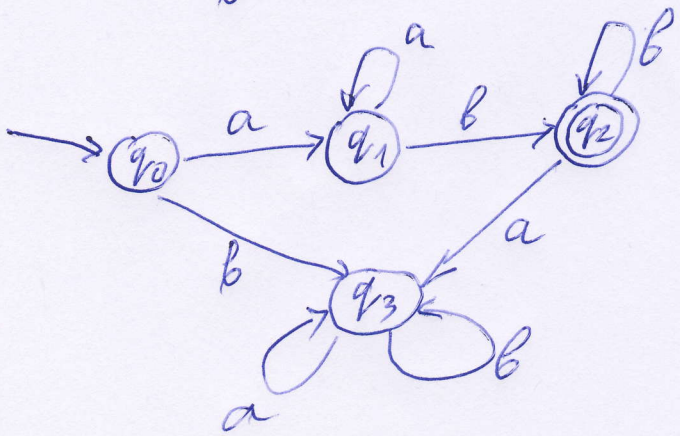
1)


a
b
a
a
b
b
q0
q1
q2

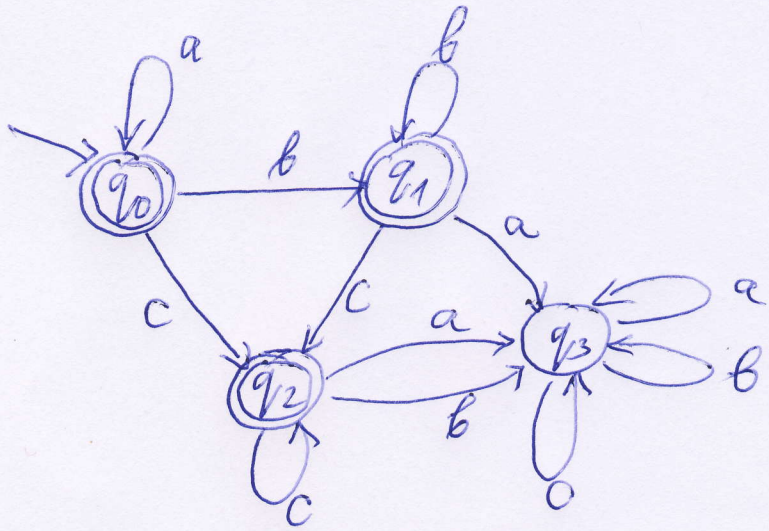
2)


a
a
b
a
a
b
b
b
q0
q1
q2
q3

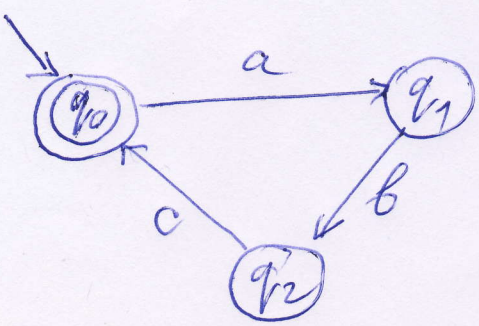
3)


a
b
a
b
a
b
b
a
q0
q1
q2
q3

4)


a
b
b
a
c
c
a
a
b
b
c
c
q0
q1
q2
q3

5)


a
b
c
q0
q1
q2