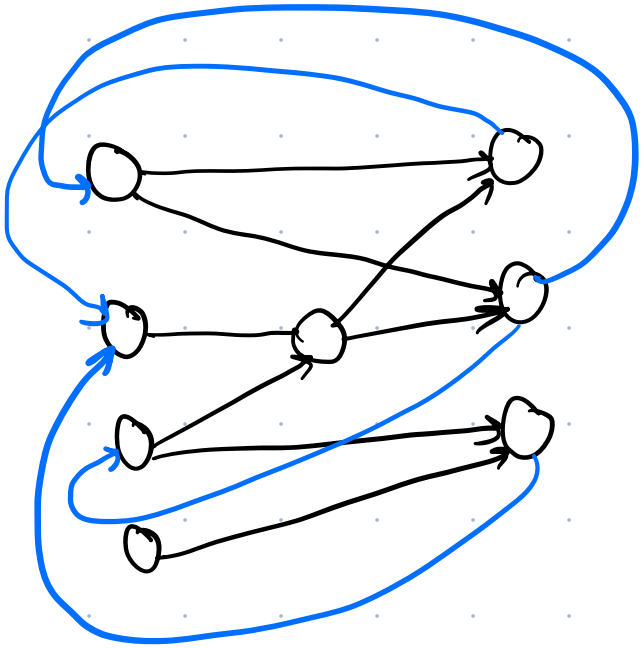


K

M

НУЖНО

max (K, M)

НОВЫХ ДОРОГ

K=3

M=3

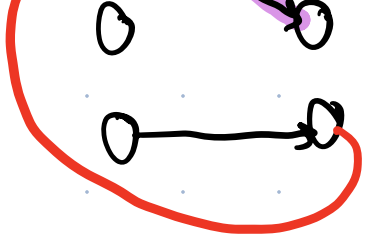
$$\begin{pmatrix} 0 & 1 & \\ & 0 & \\ 1 & & 0 \end{pmatrix}$$

СТОКИ: [....]

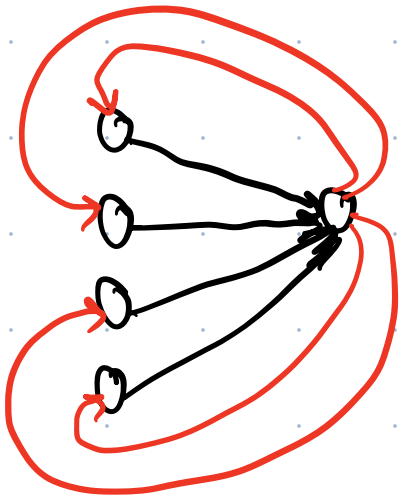
ИСТОКИ: [...]

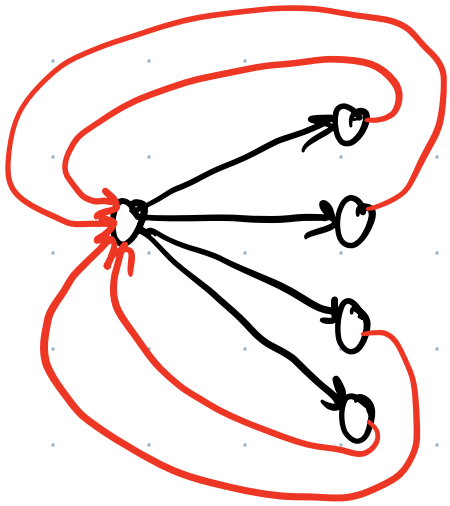
ВОЗЬМЁМ ИСТ. 0

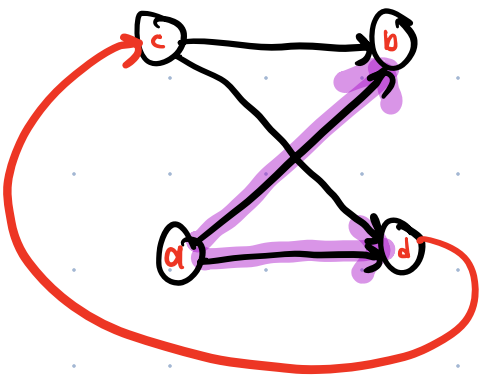
DFS(0) ДАСТ ВСЕ ДОСТИЖ. ВЕРШ.

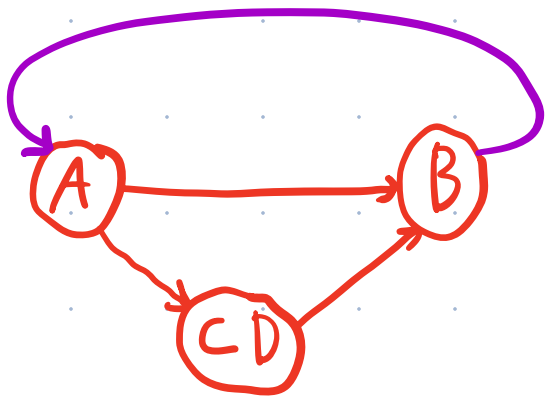


НАХОДИМ СТОК С ∞ (НЕДОСТИЖИМЫЙ ИЗ q) И ДОБАВЛ. РЕБРО В q



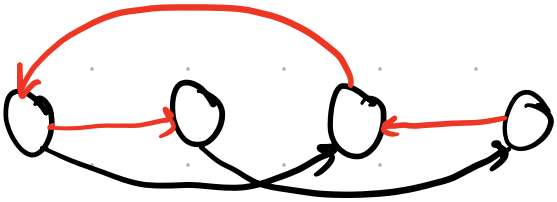


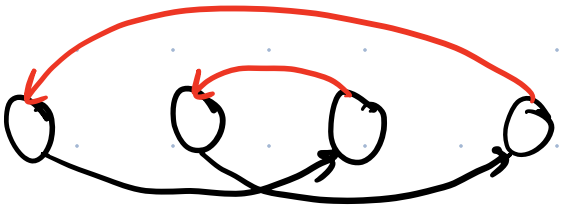


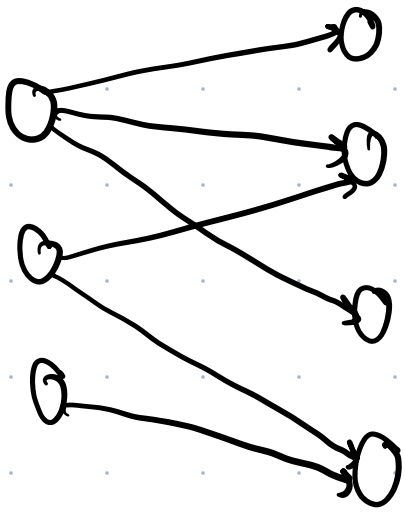


АЛГ.:

1) $M = KCC(G)$
2) ТОП. СОРТ. M
3) ПОСЛЕДН. ВЕРШ ⟶ 1 ВЕРШ

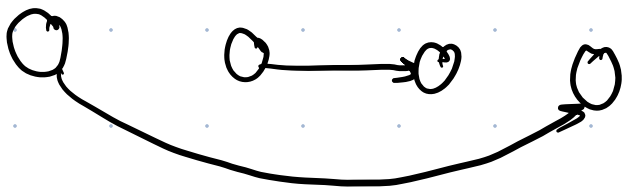


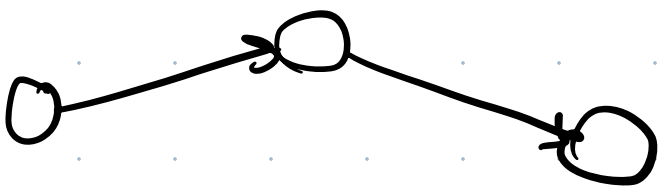


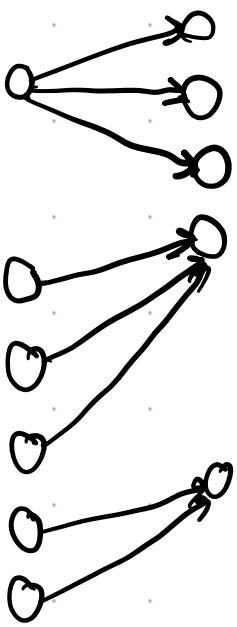


K

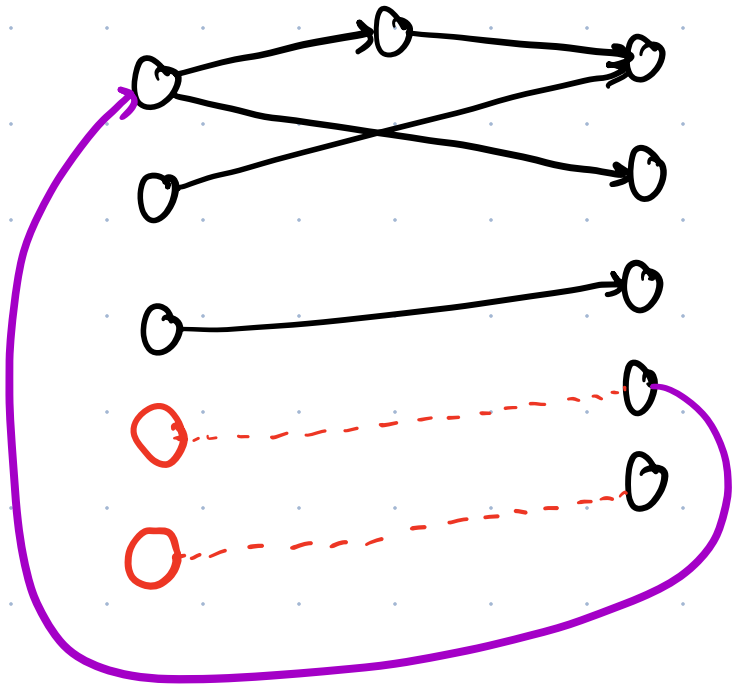
M

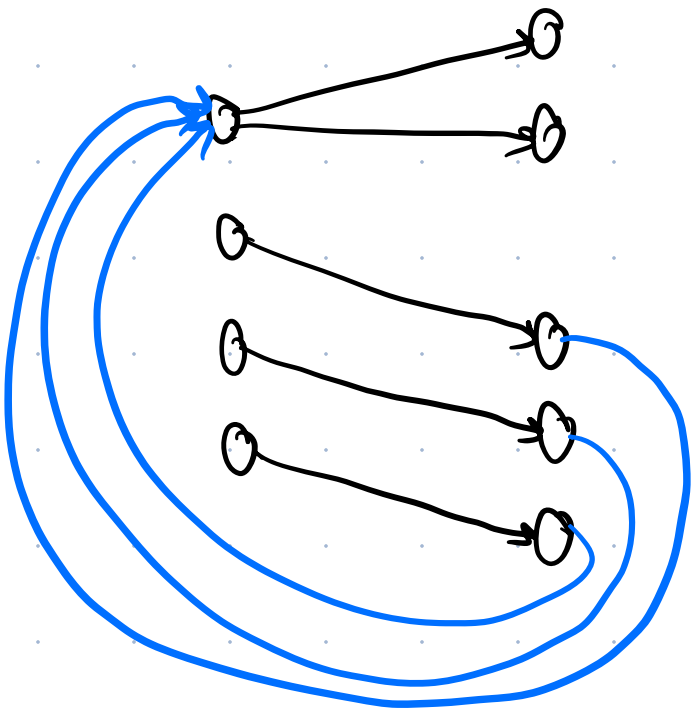


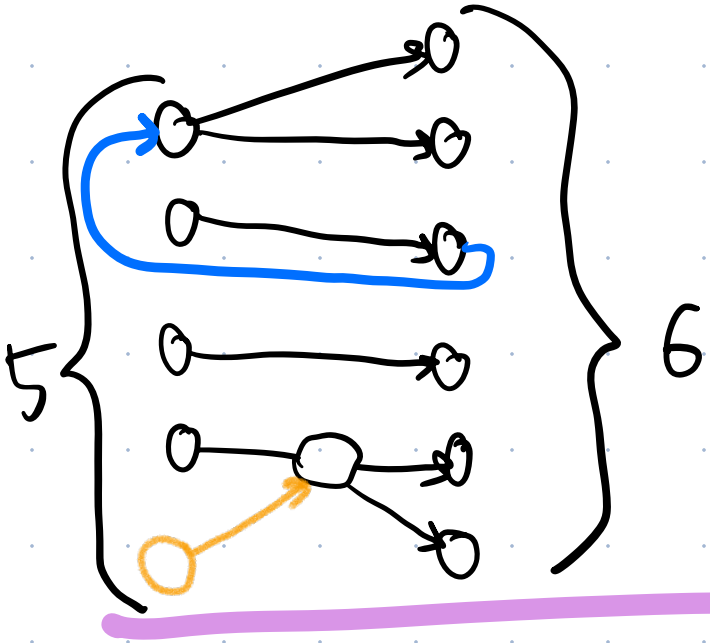




БЕЗ ОГР. ОБЩ. СТОКОВ ≥ ИСТОКОВ

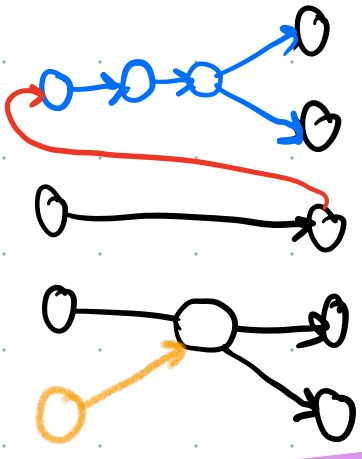




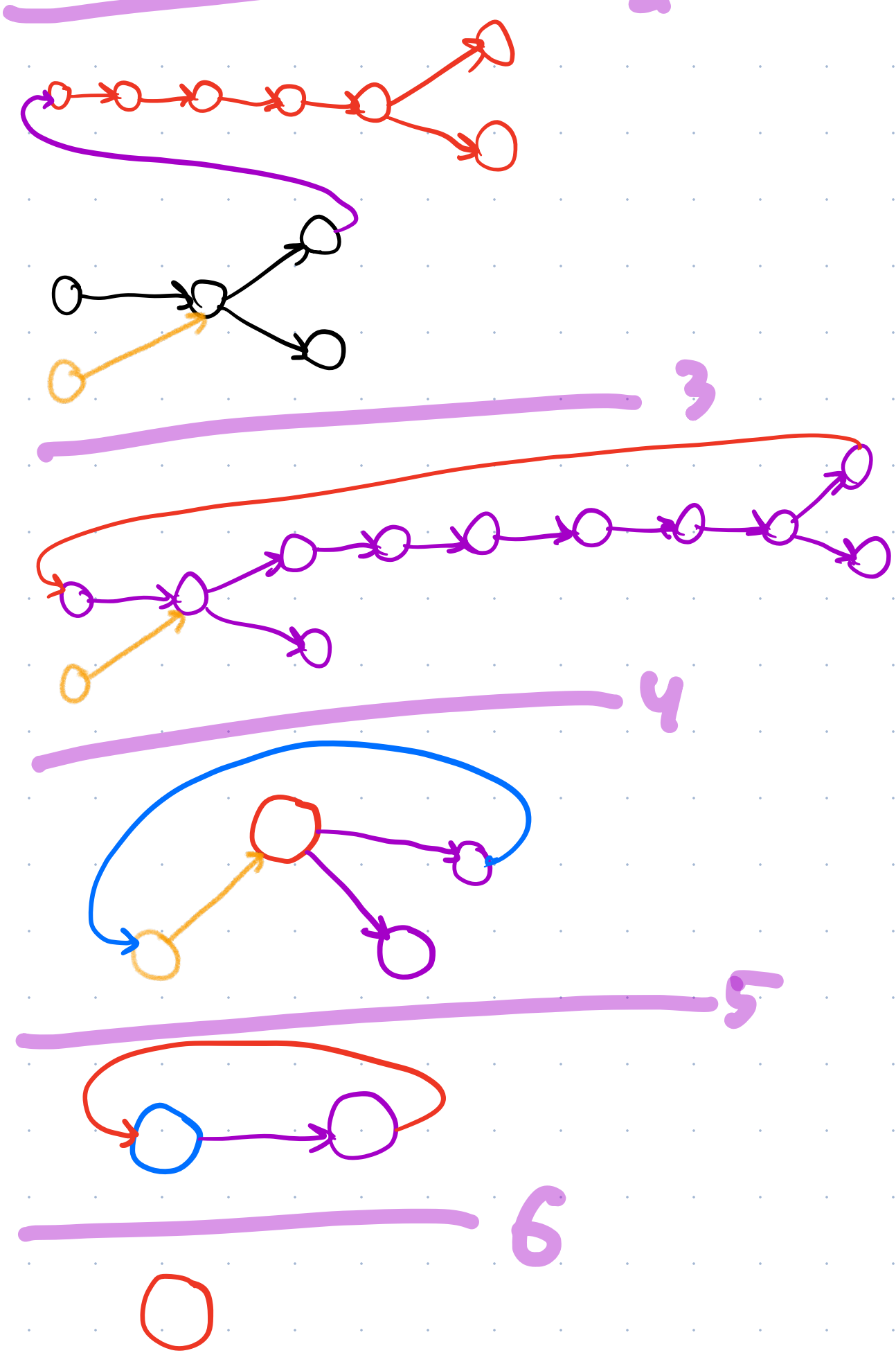


$\max(5,6) = 6$

1



2

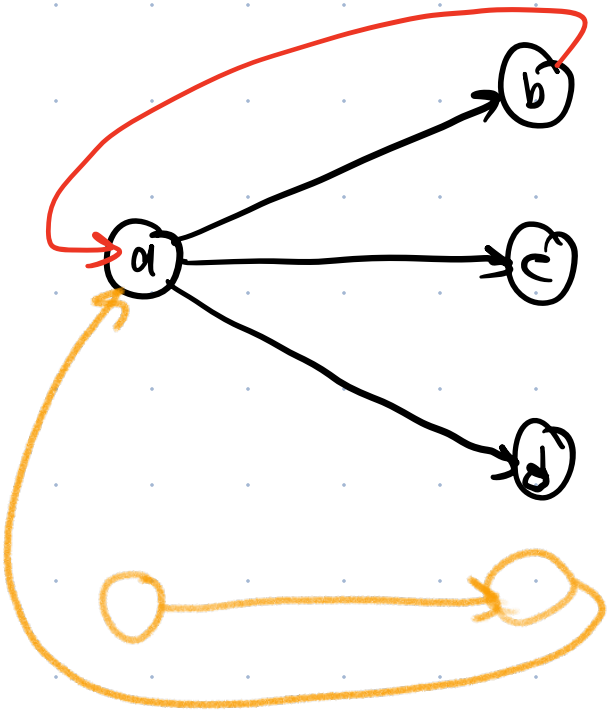

3
4
5
6

АЛГОРИТМ (НЕ СОВСЕМ)

G

0. ККС, ИЩЕМ СТ/ИСТ. (M-МЕТАГРАФ)
   СВОДИМ ЗАД. К СТ ≥ ИСТ.

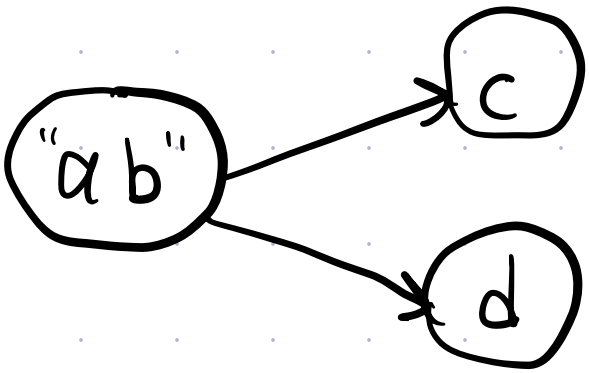
1. ИСТОК s
   bfs(M, s)
   ИЩЕМ НЕДОСТИЖ. СТОК u
   ЕСЛИ ЕСТЬ:
      ДОБАВЛ. РЕБРО u → s УДАЛ. s ИЗ ИСТ. u ИЗ СТ.
   ЕСЛИ НЕТ:
      ДОБАВЛ. РЕБРО ИЗ ЛЮБОГО СТОКА → s

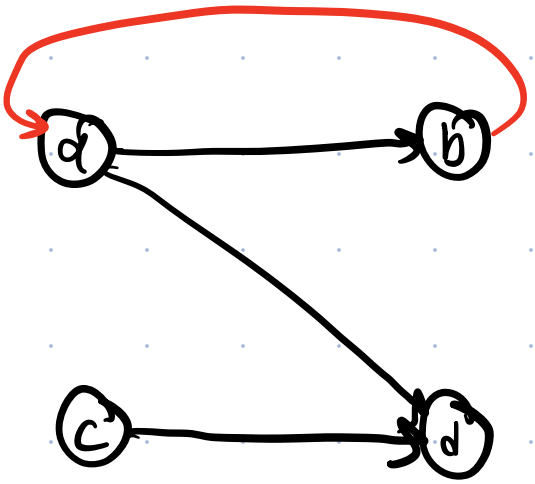


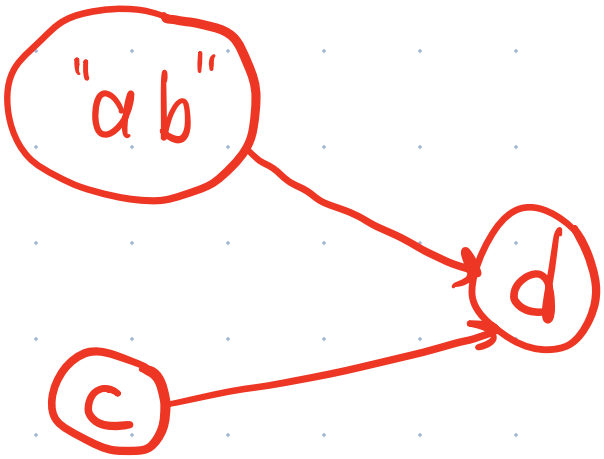
u : [a]

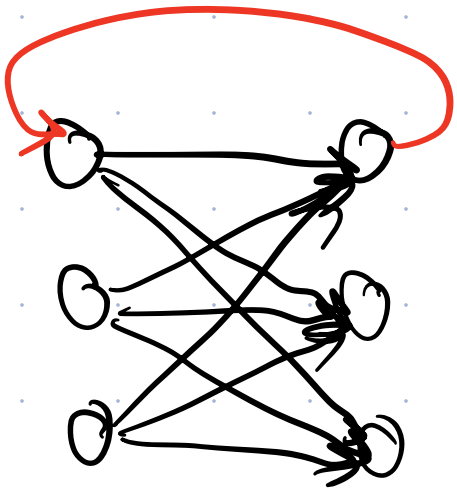
c : [b, c, d]

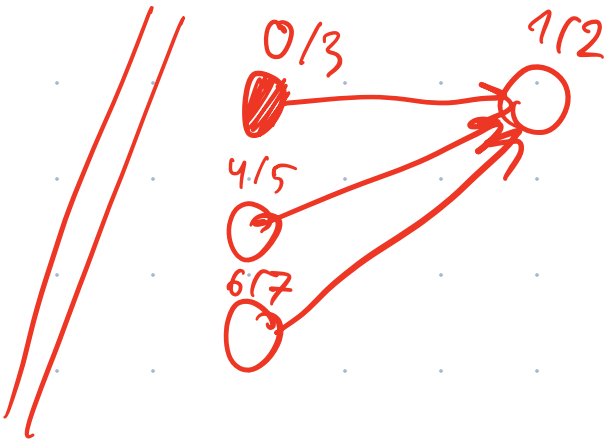
u : [a b]











А) ПОКА НЕ ВСЕ СО ВСЕМИ:

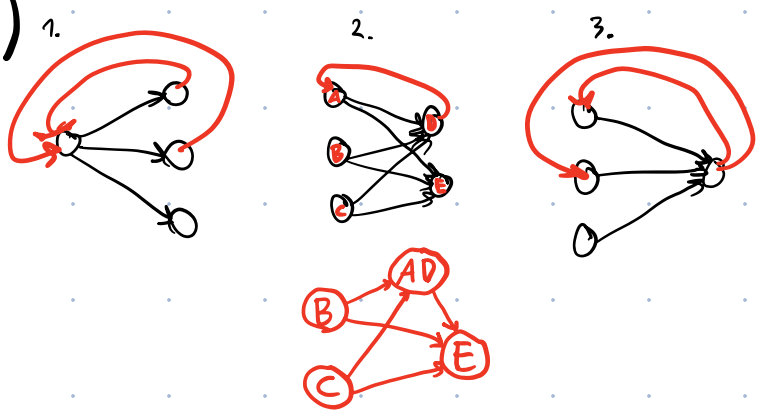
НАХОДИМ СТОК s НЕДОСТ. ИЗ ИСТ. i

ДОБ РЕБРО s → i

-1 ИСТ., -1 СТ.

+1 ПРОМ. ВЕРШ

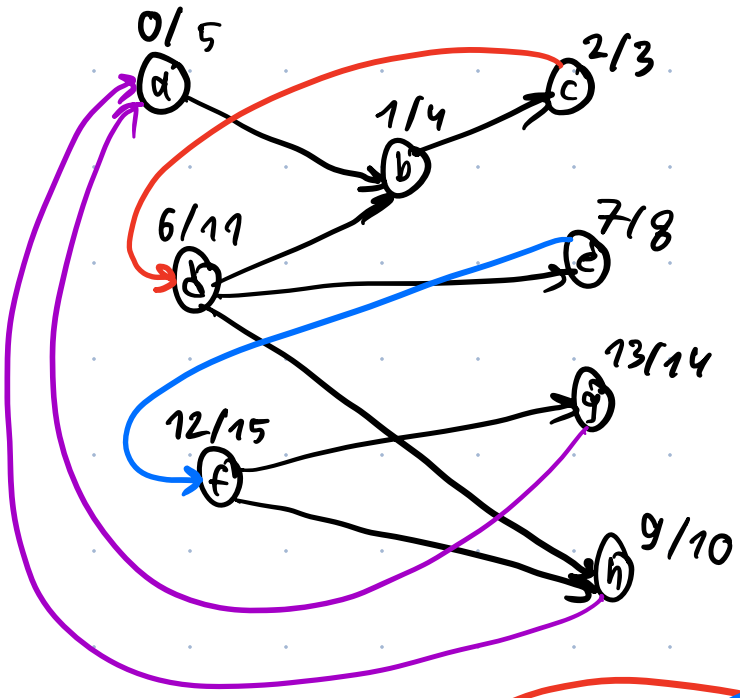
Б)

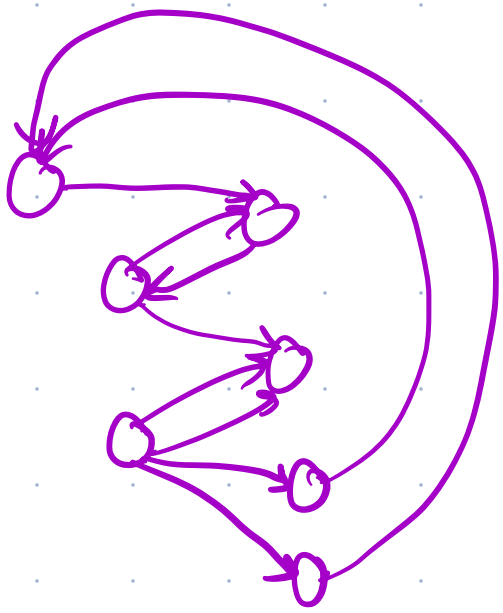


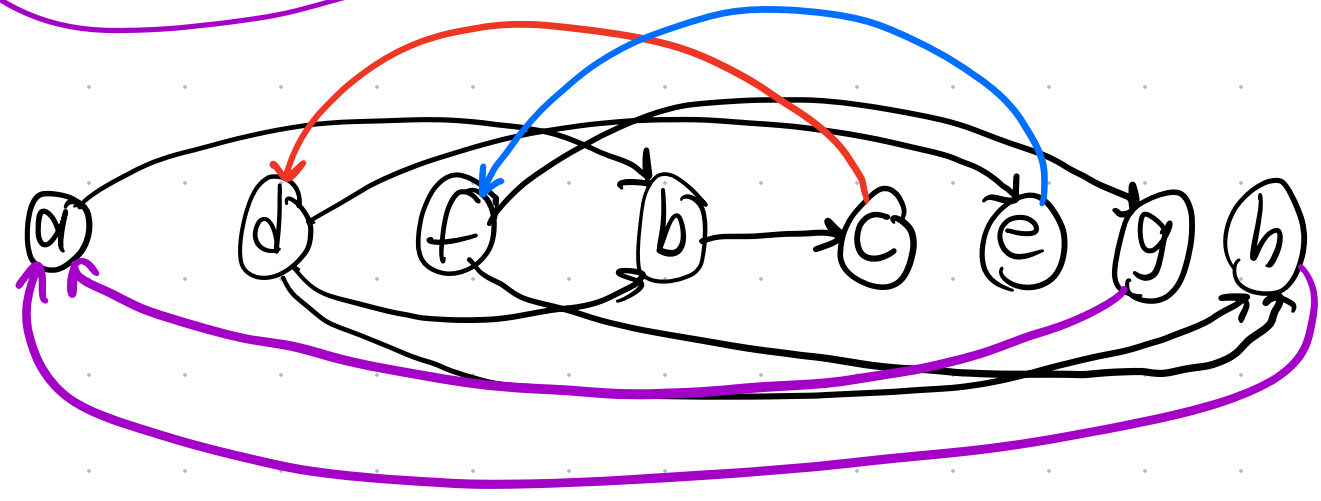
АЛГОРИТМ

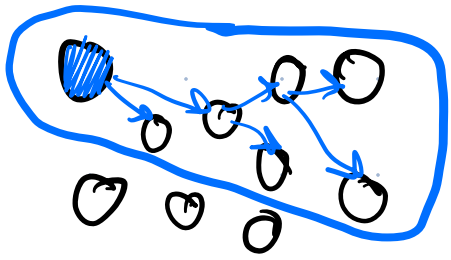
0. КСС, ИЩЕМ СТ, ИСТОКИ, ИЗОЛ. ВЕРШ.

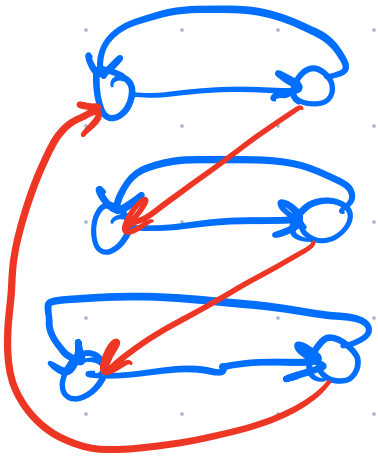
1. ЕСЛИ

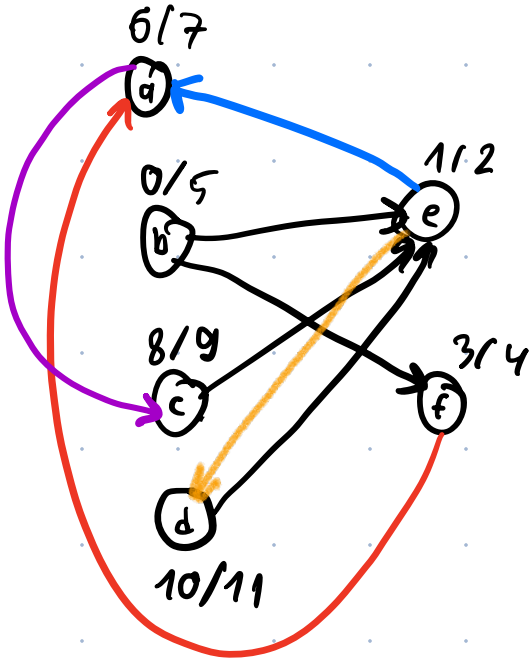


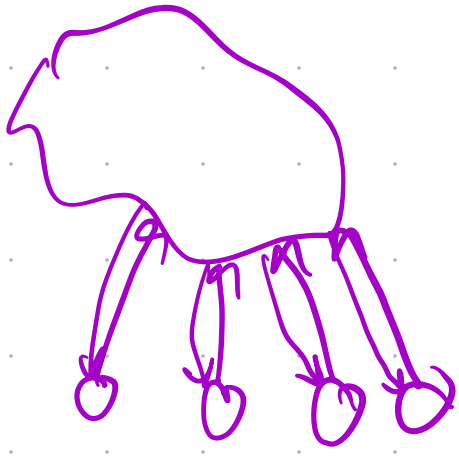


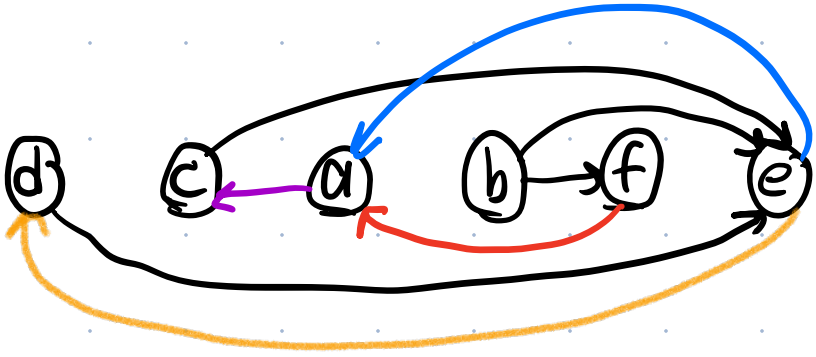




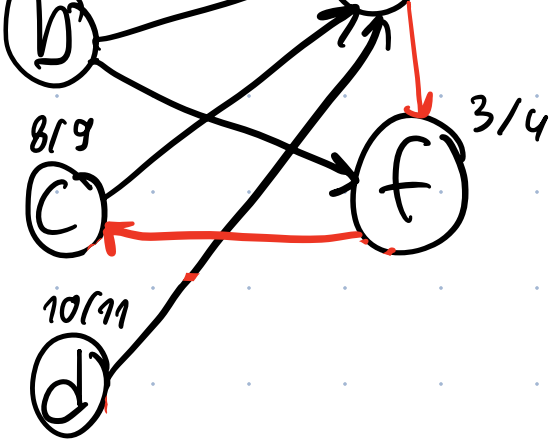


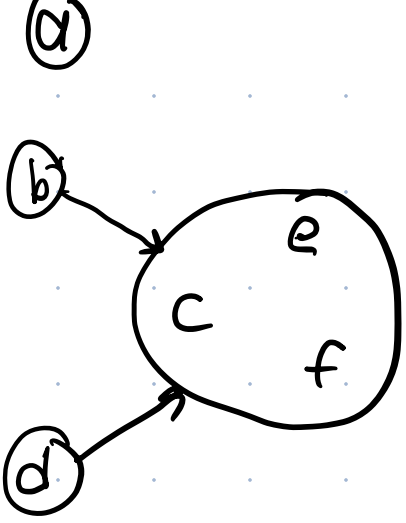

6/7
a
1/2
0/5
b
e
8/9
c
3/4
f
d
10/11

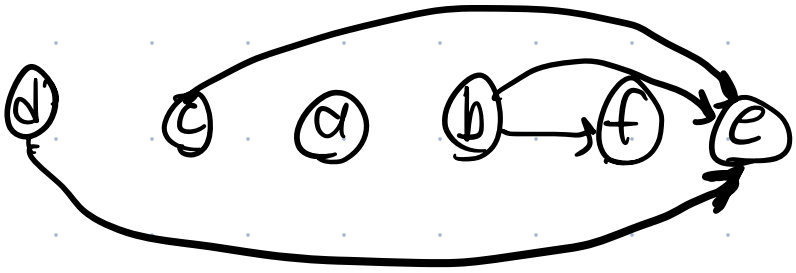


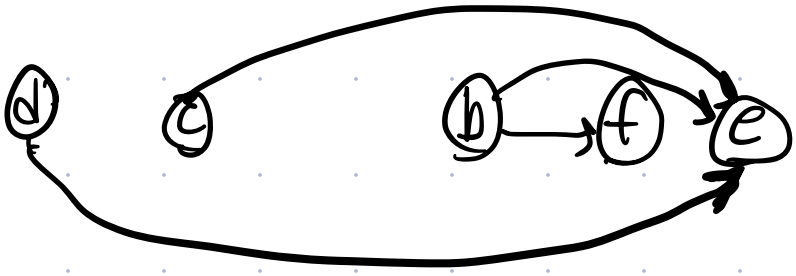

d
c
a
b
f
e

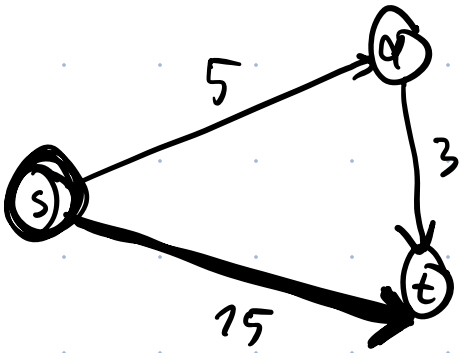

6/7
1/2
0/5


b
8/9
c
f
3/4
10/11
d

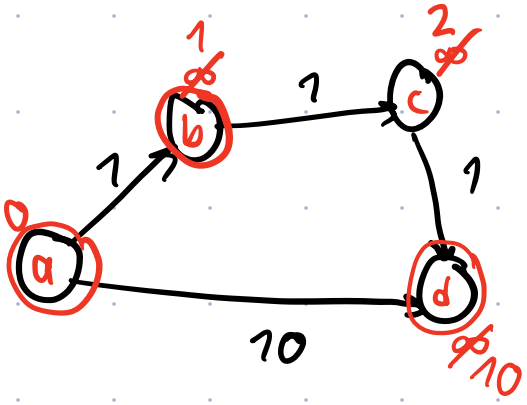

a
b
e
c
f
d

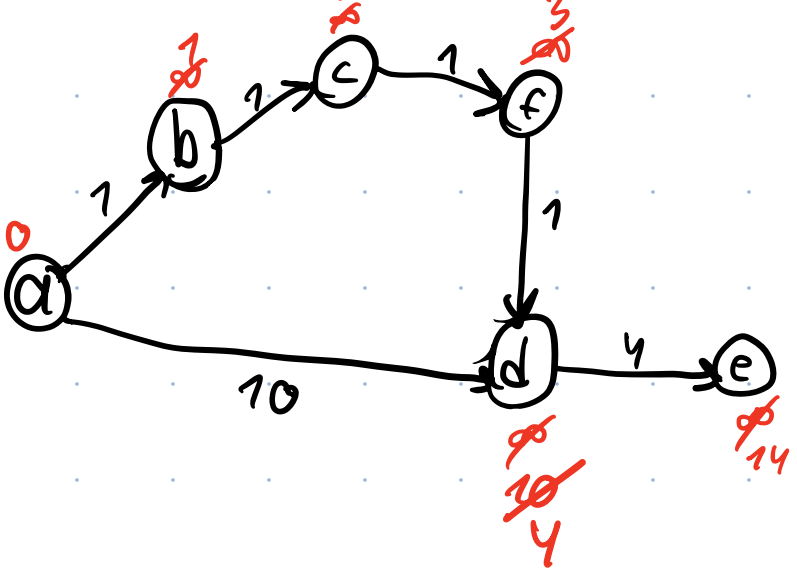

d
c
a
b
f
e

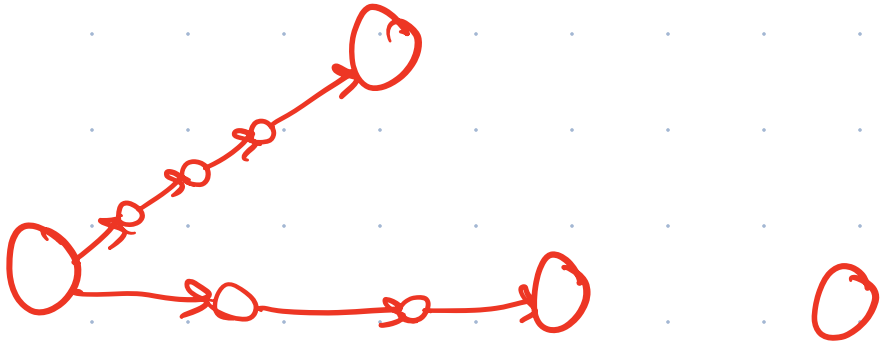

d
c
b
f
e


5
a
3
s
t
15

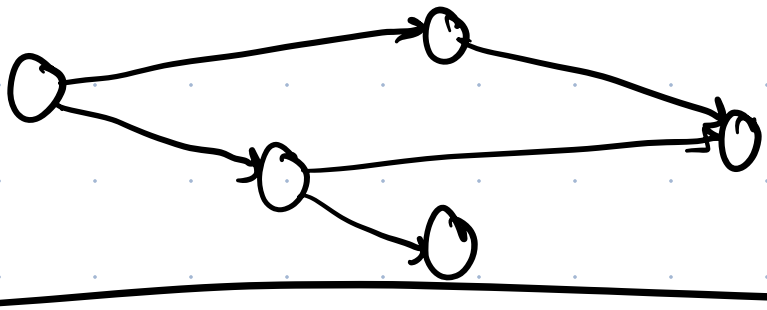
s α t


1
2
1
b
c
1
1
0
a
d
10
10





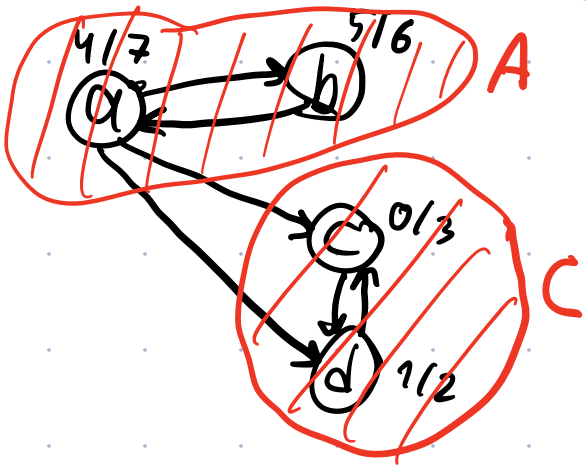
DFS



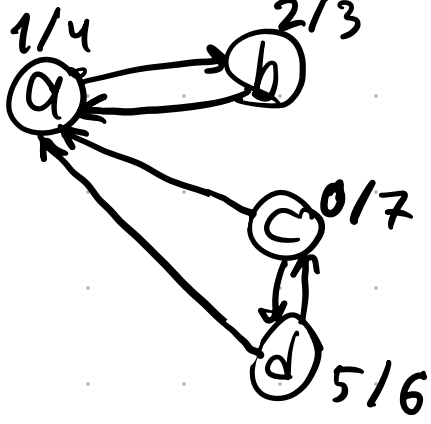
e[a] = [b, c, d]

e[b] = [a]

e[c] = [d]



$e[d] = [c]$

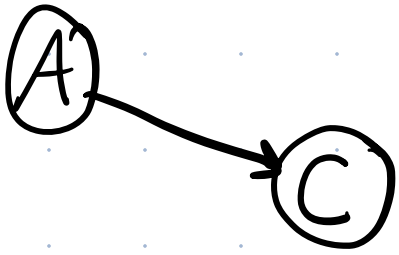


$M[v]$

a	b	c	d
A	A	C	C

$E[A] = [C]$

$E[C] = [\,]$



$e[a] = [b, c, d]$

$e[b] = [a]$

$e[c] = [d]$

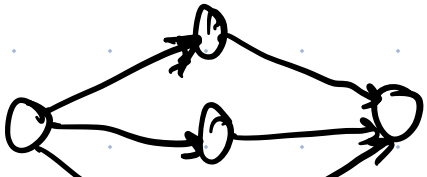
$e[d] = [c]$

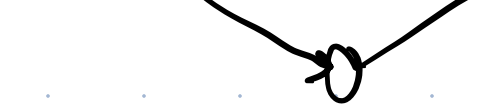
$\hat{e}[a] = [b]$

$\hat{e}[b] = [a]$

$\hat{e}[c] = [a, d]$

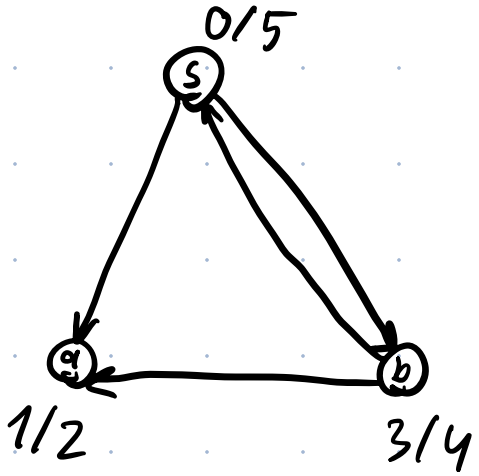
$\hat{e}[d] = [a, c]$





s_1, f_1, s_2, f_2

s	0/5
a	1/2
b	3/4



s a	[0 [1 2] 5]	РЕБ. ДЕРЕВА
b a	[1 2] [3 4]	ПЕРЕКР.
s b	[0 [3 4] 5]	ДЕРЕВА
b s	[0 [3 4] 5]	ОБРАТНОЕ

[[ ]]

[[ ]]