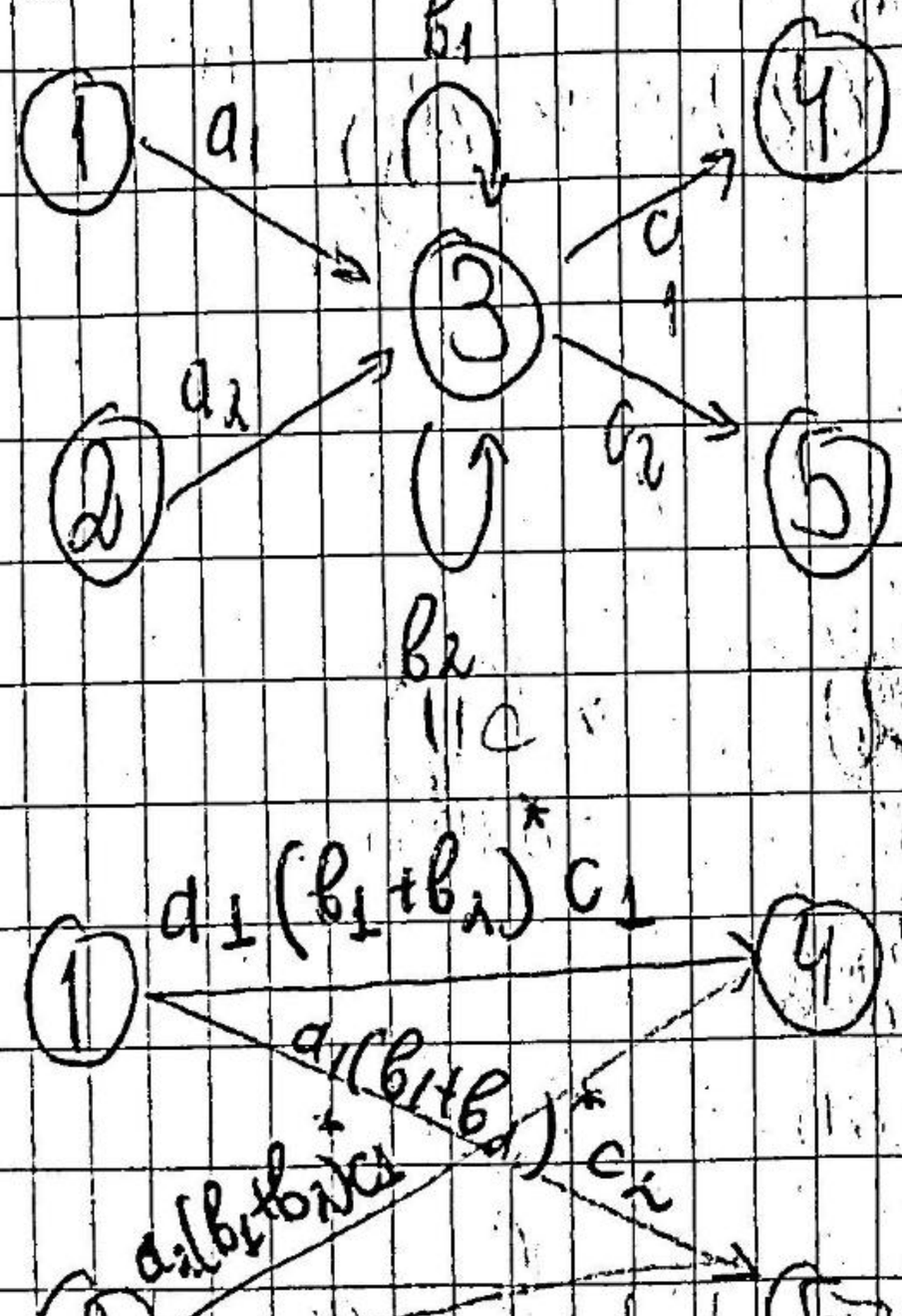
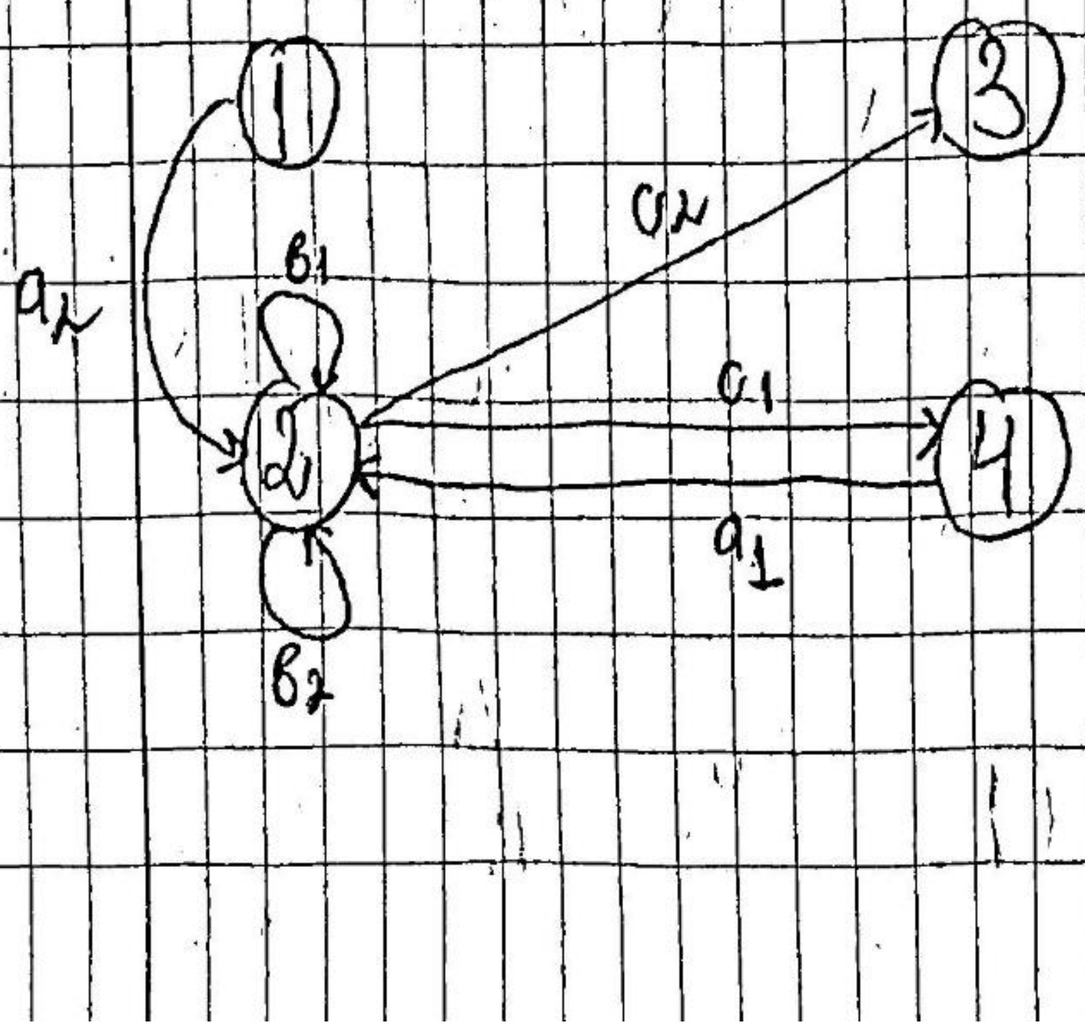
Подготовка за контролно

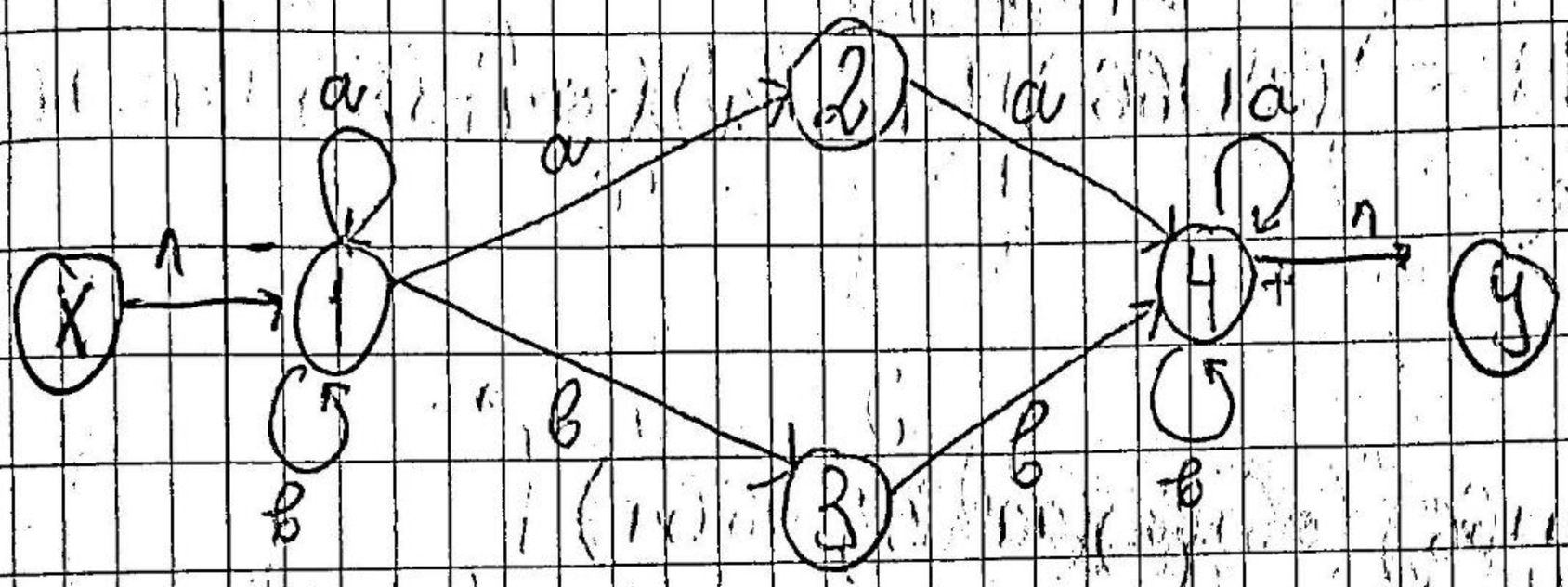
зад 1. Да се премахне връх 3



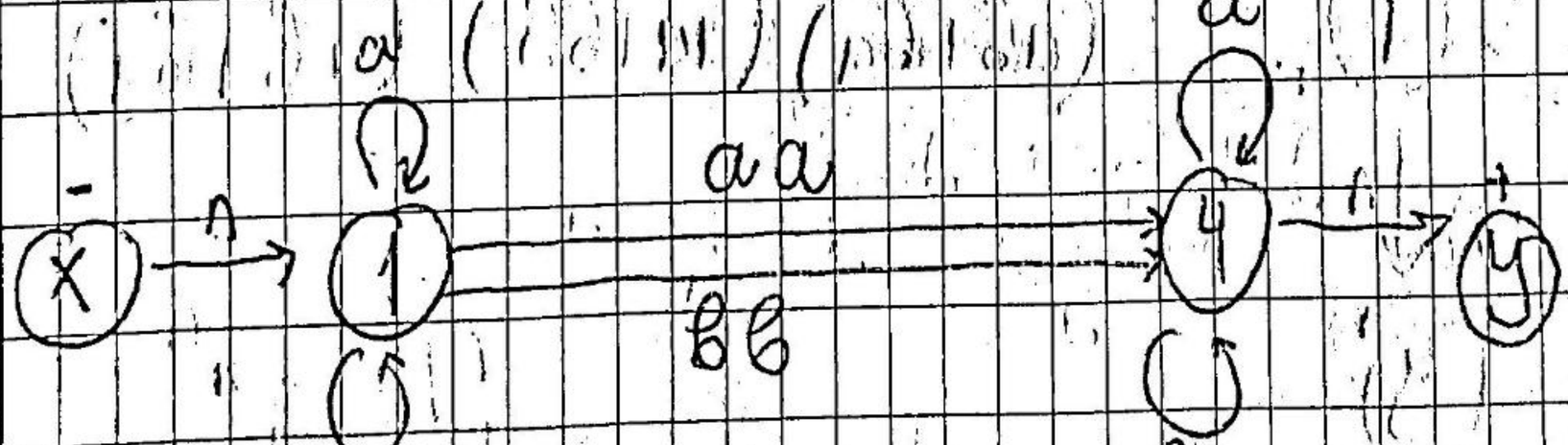
зад 2 Да се премахне връзка 2



Зад 3, 025

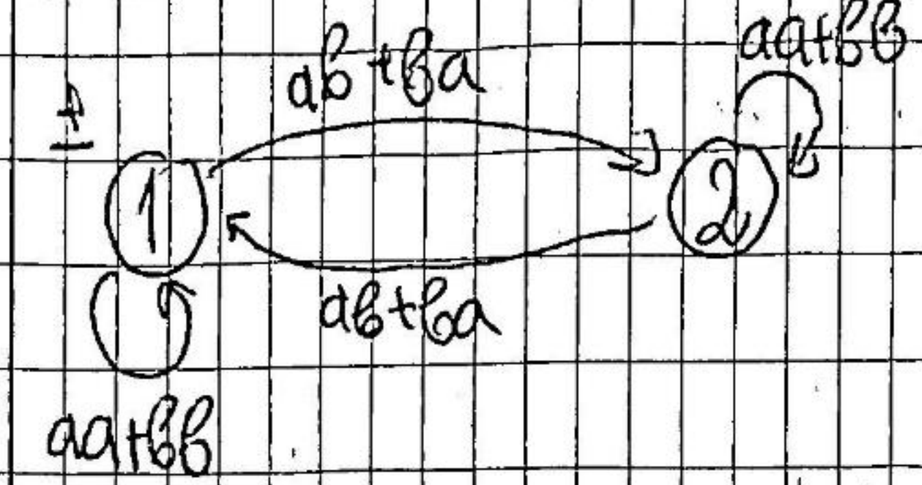


Махаме на върх 2 и 3

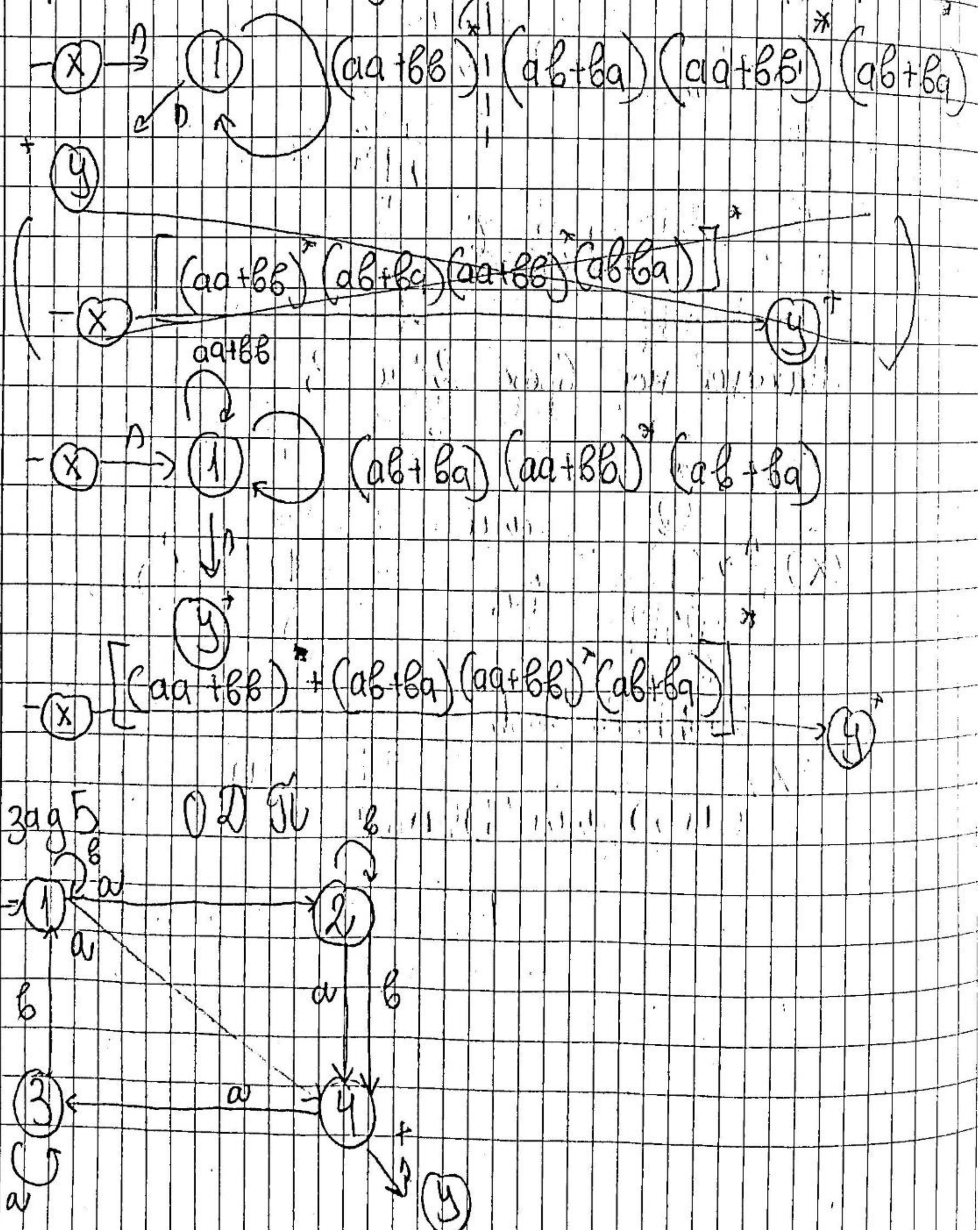


$(a+b)^*(aa+bb)(a+b)^*$

Зад 4 ОДУ

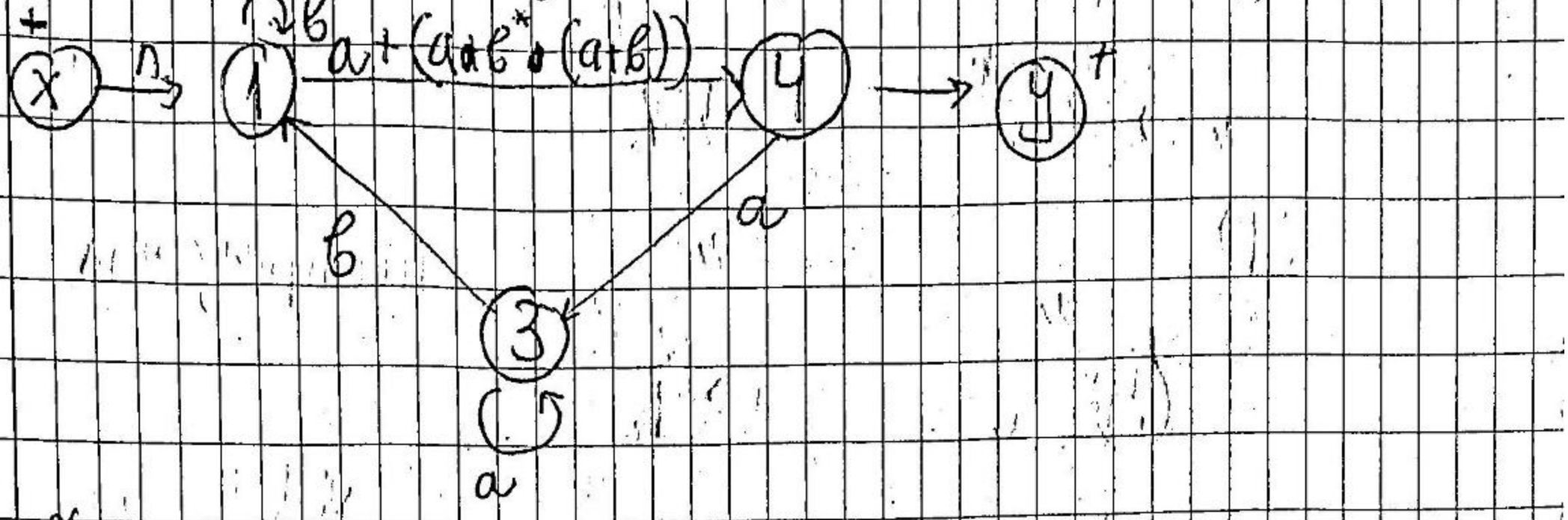


Премахване на възел 2 → Това е отделна причина



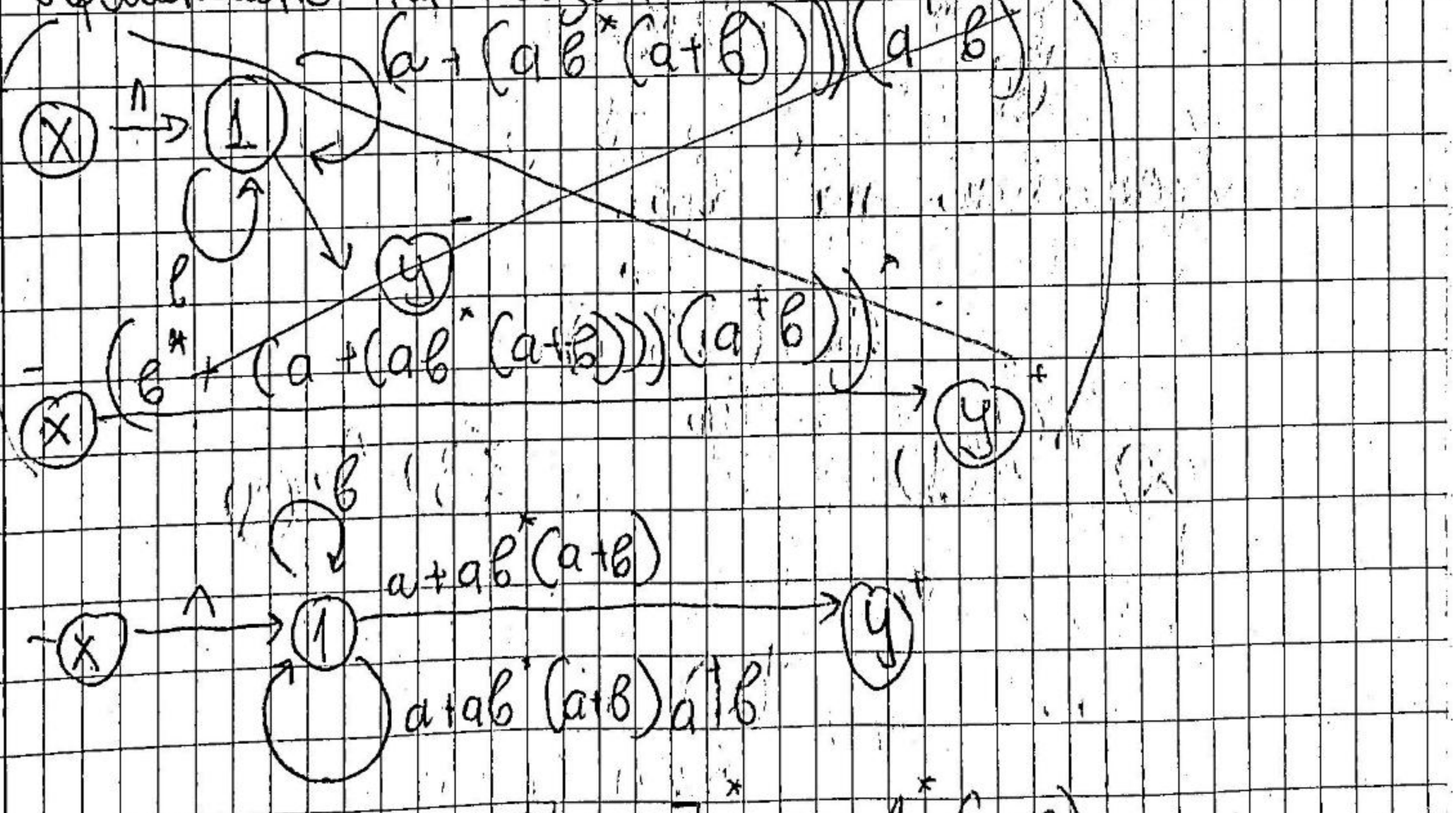
Зад 5 ОДУ

Премахване на възел 2

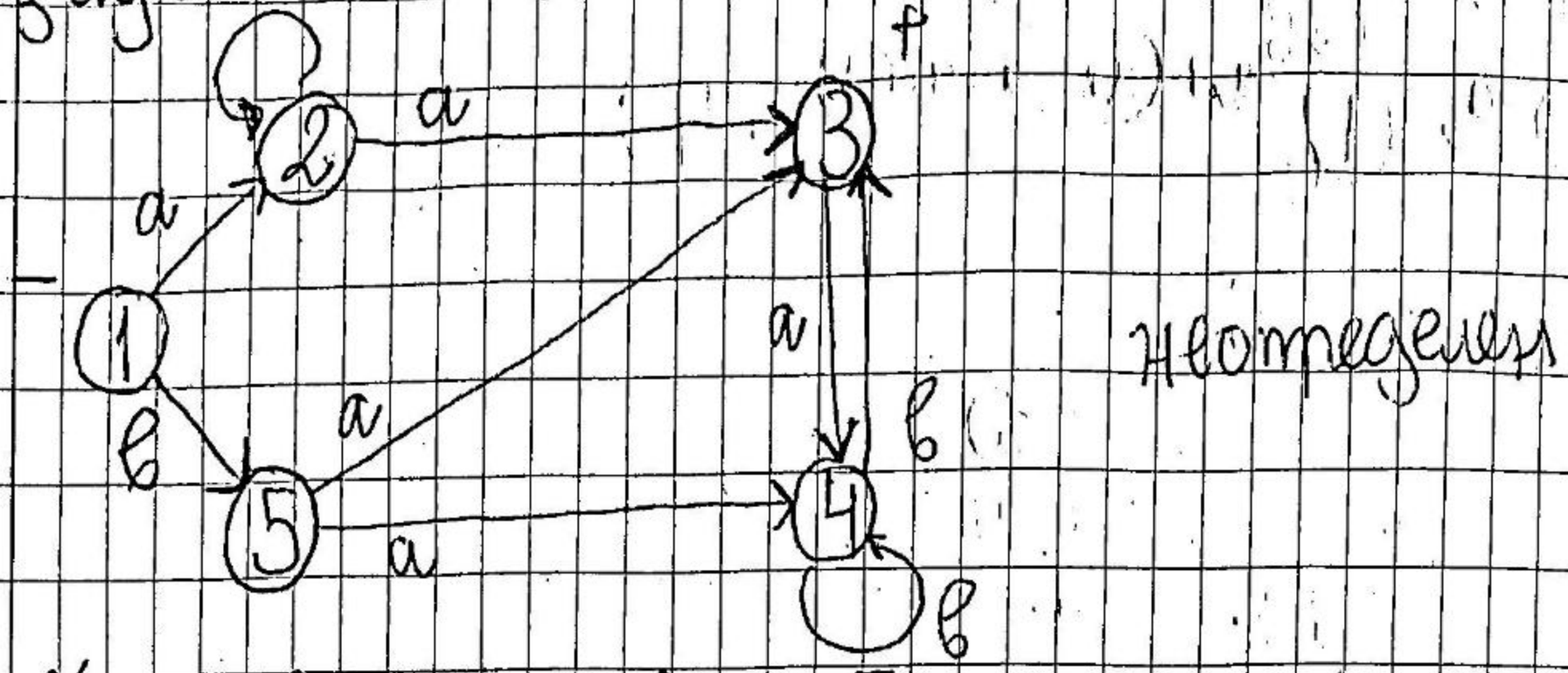


Премахване на възел 3

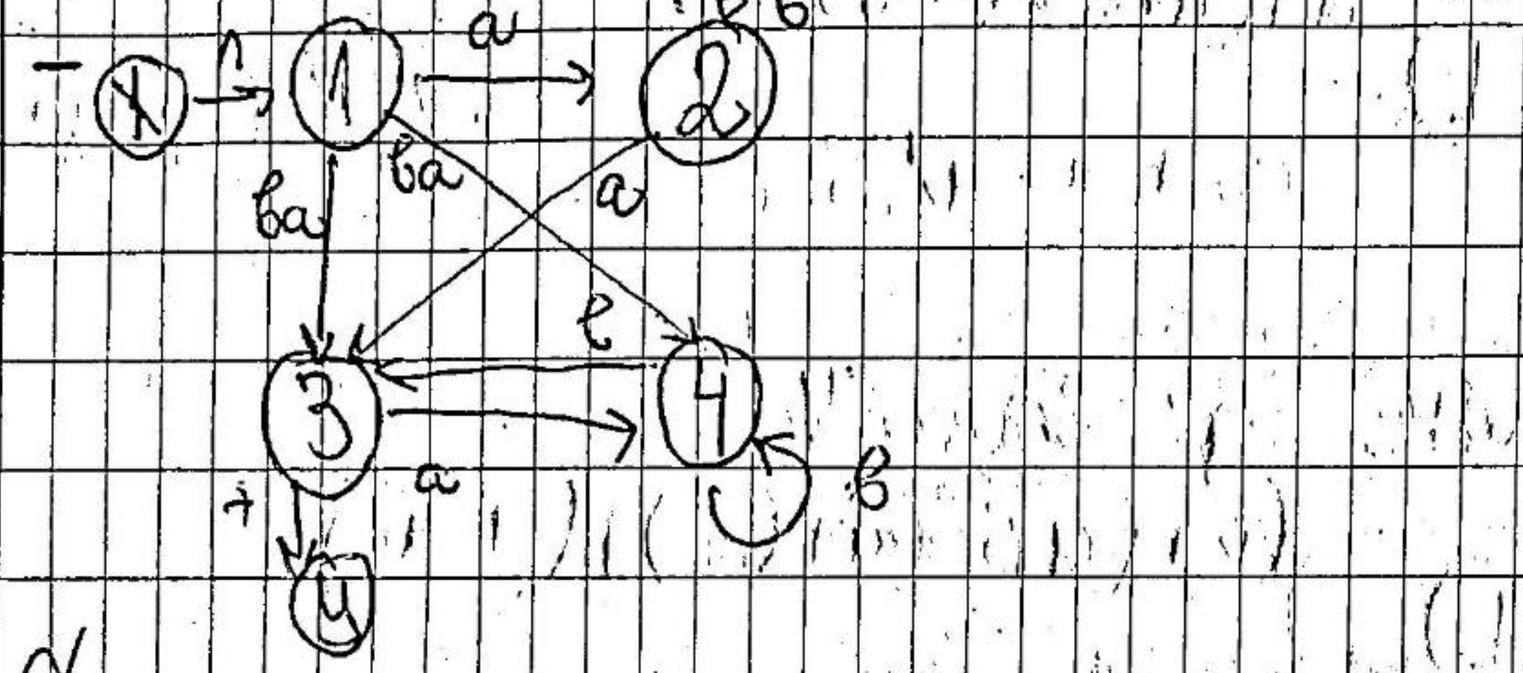
Премахване на възел 4



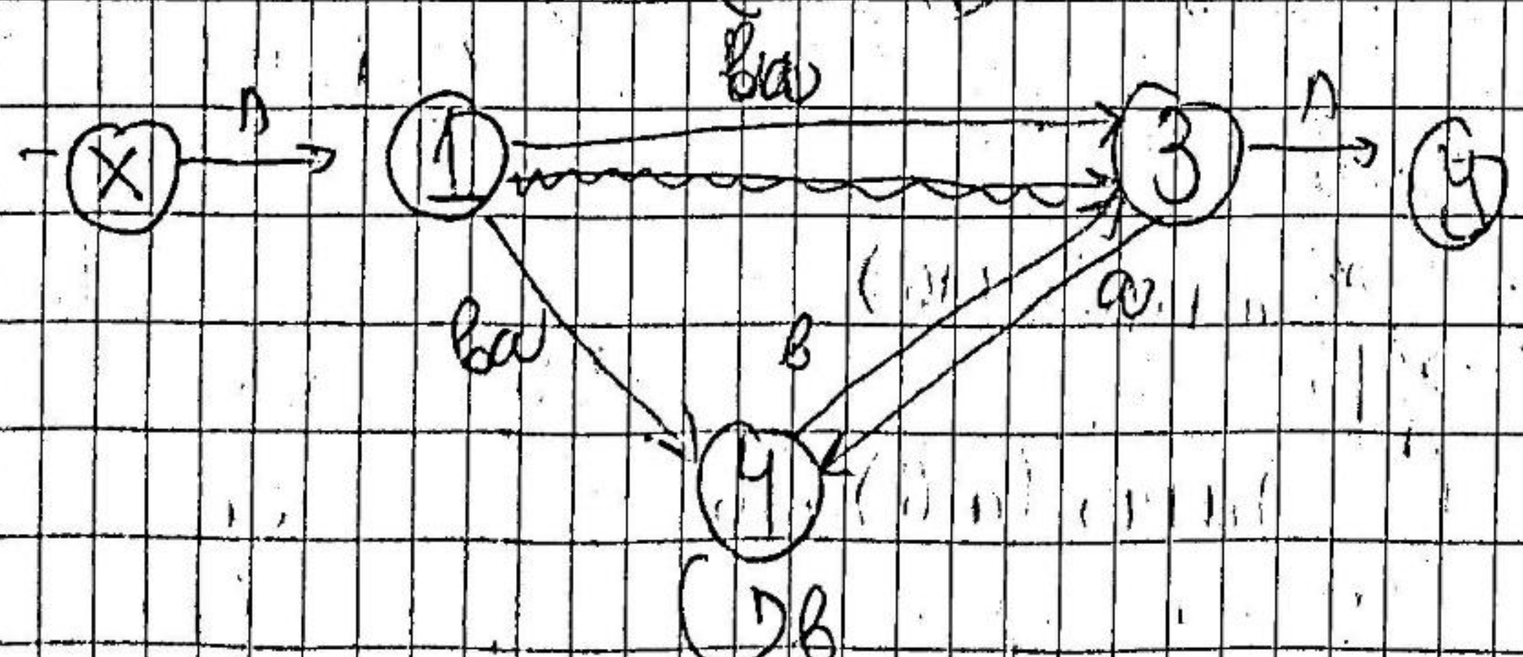
Задача 2



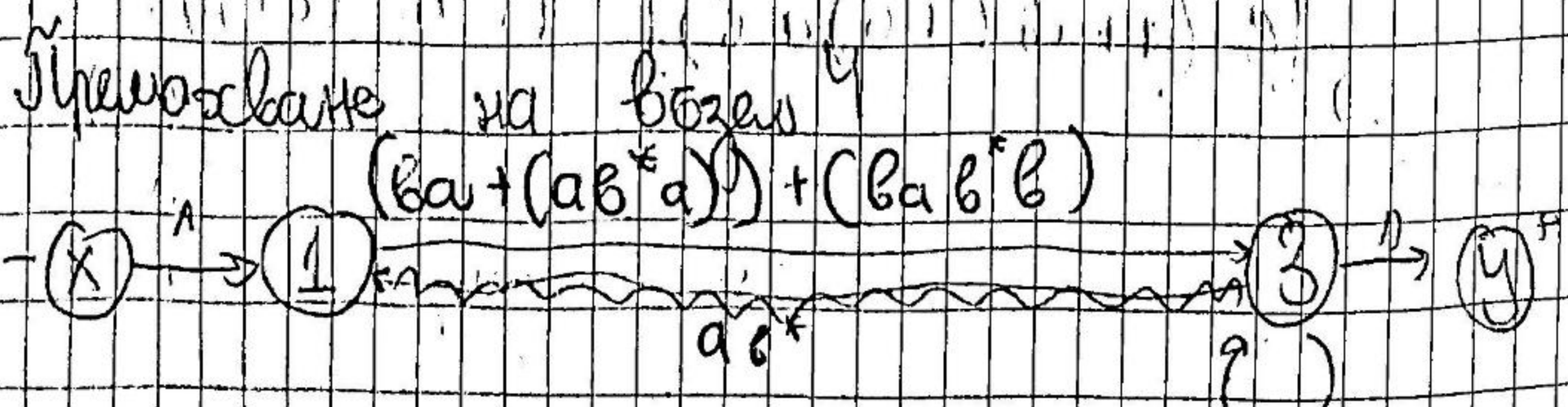
Премахване на възел 5

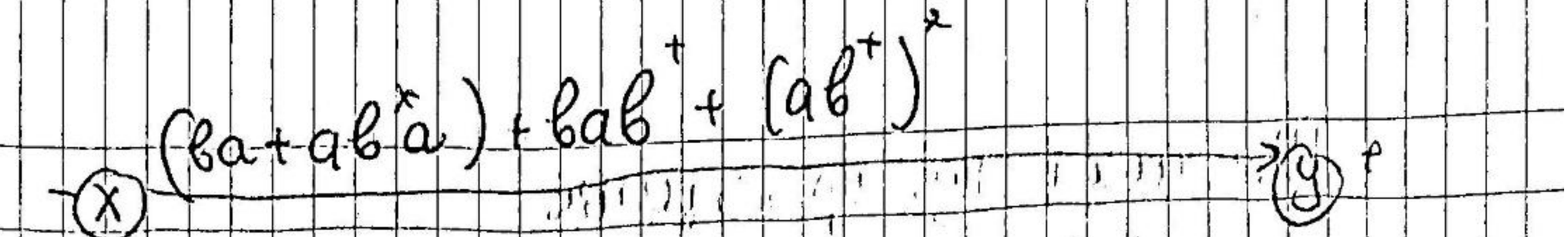


Премахване на възел 2



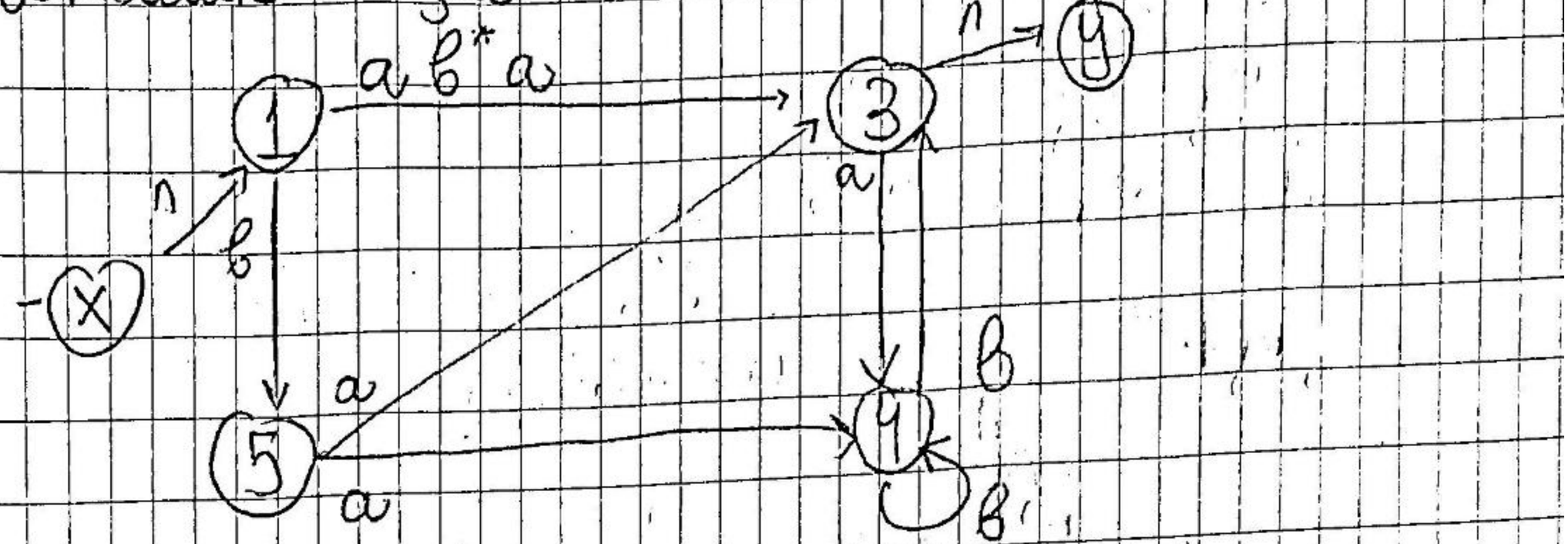
Премахване на възел 1



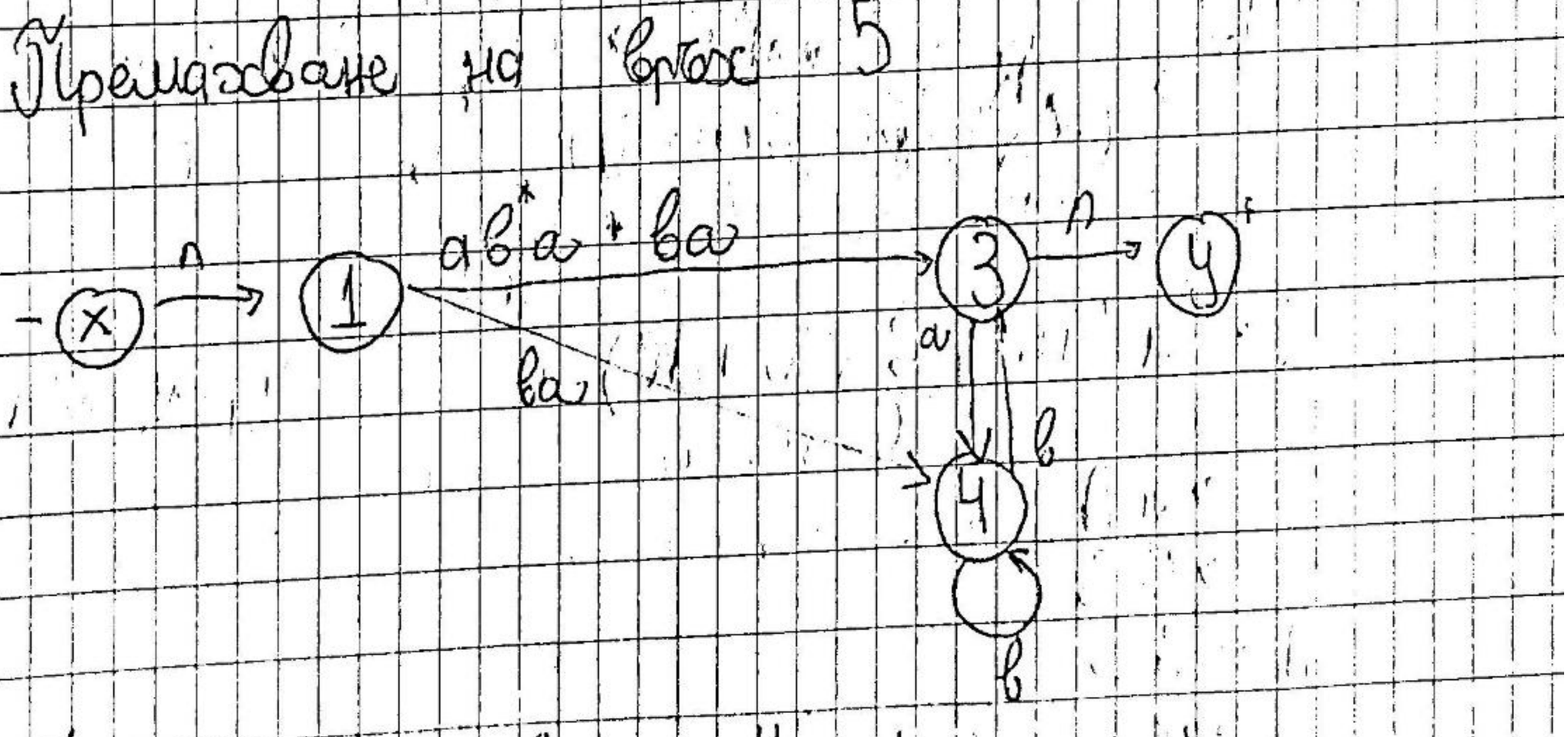


Зад 6

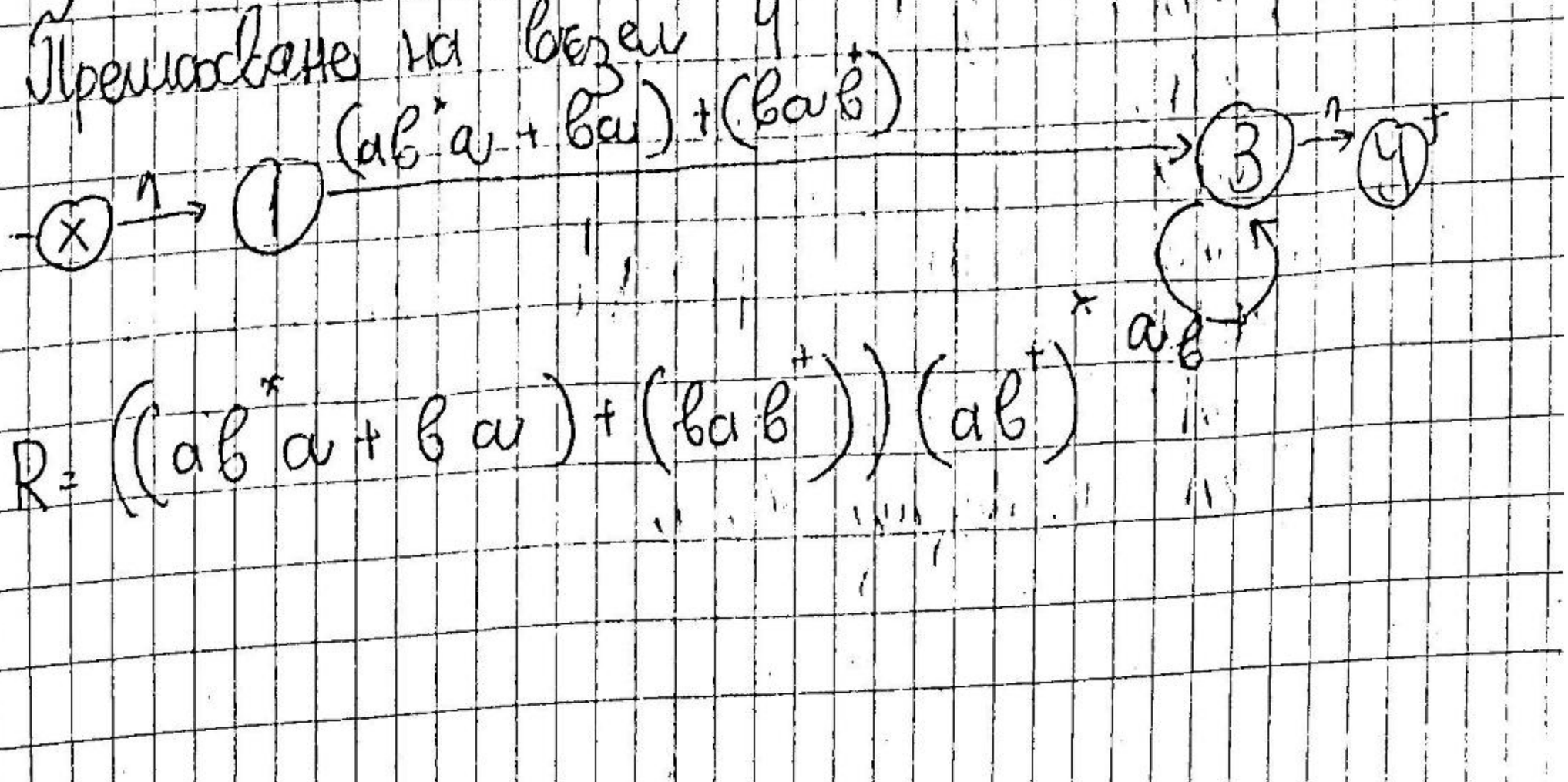
Махаме възел 2



Премахване на връзка 5



Премахване на възел 4

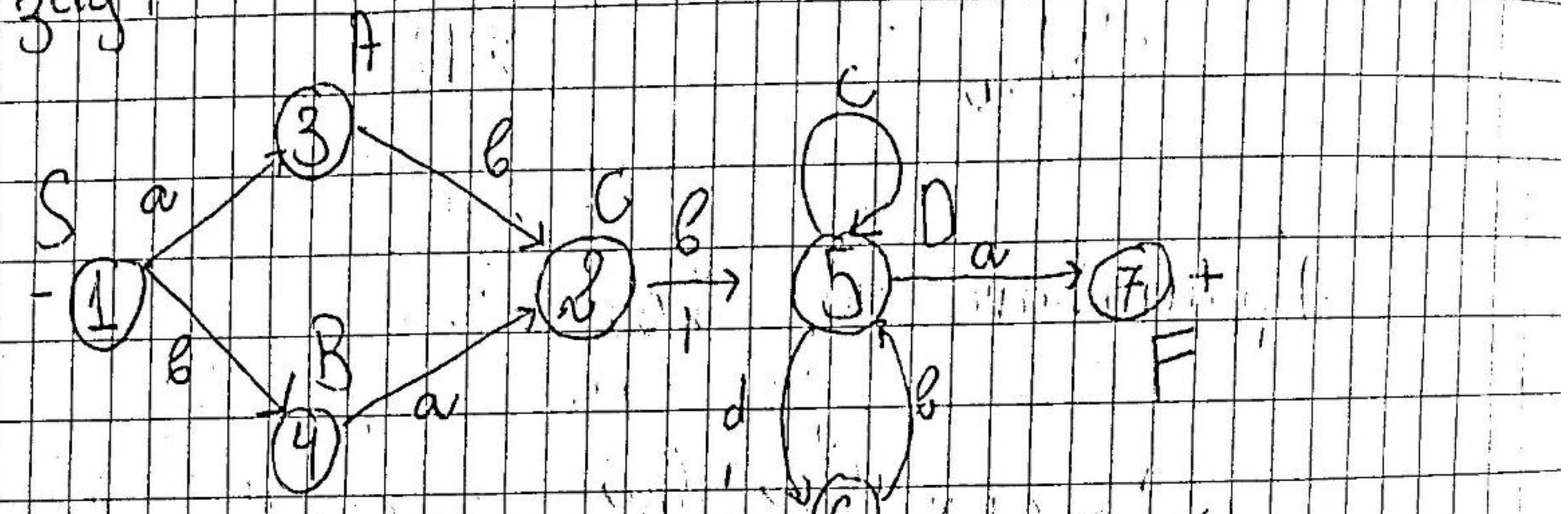


$$R = \left((ab^*a + ba) + (bab^*)\right)(ab^*)^* ab^*$$

Таблица на преходите

	a	b
{1}	{2}	{5}
{2}	{3}	{2}
{5}	{3,4}	{6}
{3}	{4}	{-}
{3,4}	{4}	{3}
{4}	{6}	{4,3}

Зад 7



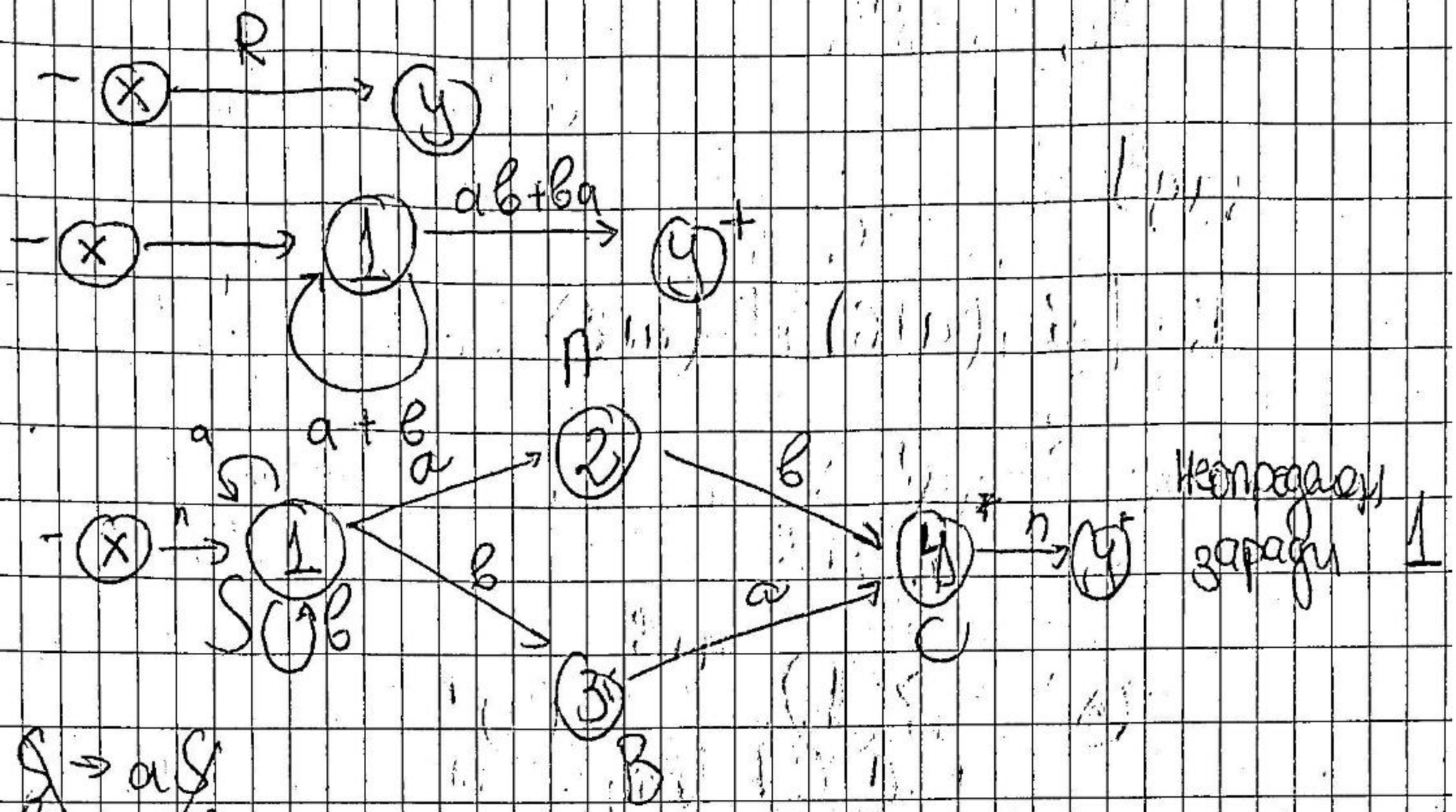
$R = (ab + ba)\, b\, (c + db)^{*} ai$ определен

$S \to aA$
$S \to bB$
$A \Rightarrow bC$
$B \to aC$
$C \to bD$
$D \to cD$
$D \to dE$
$E \to bD$
$D \to cF$
$F \to \Lambda$

изходящи входящи

Зад 8

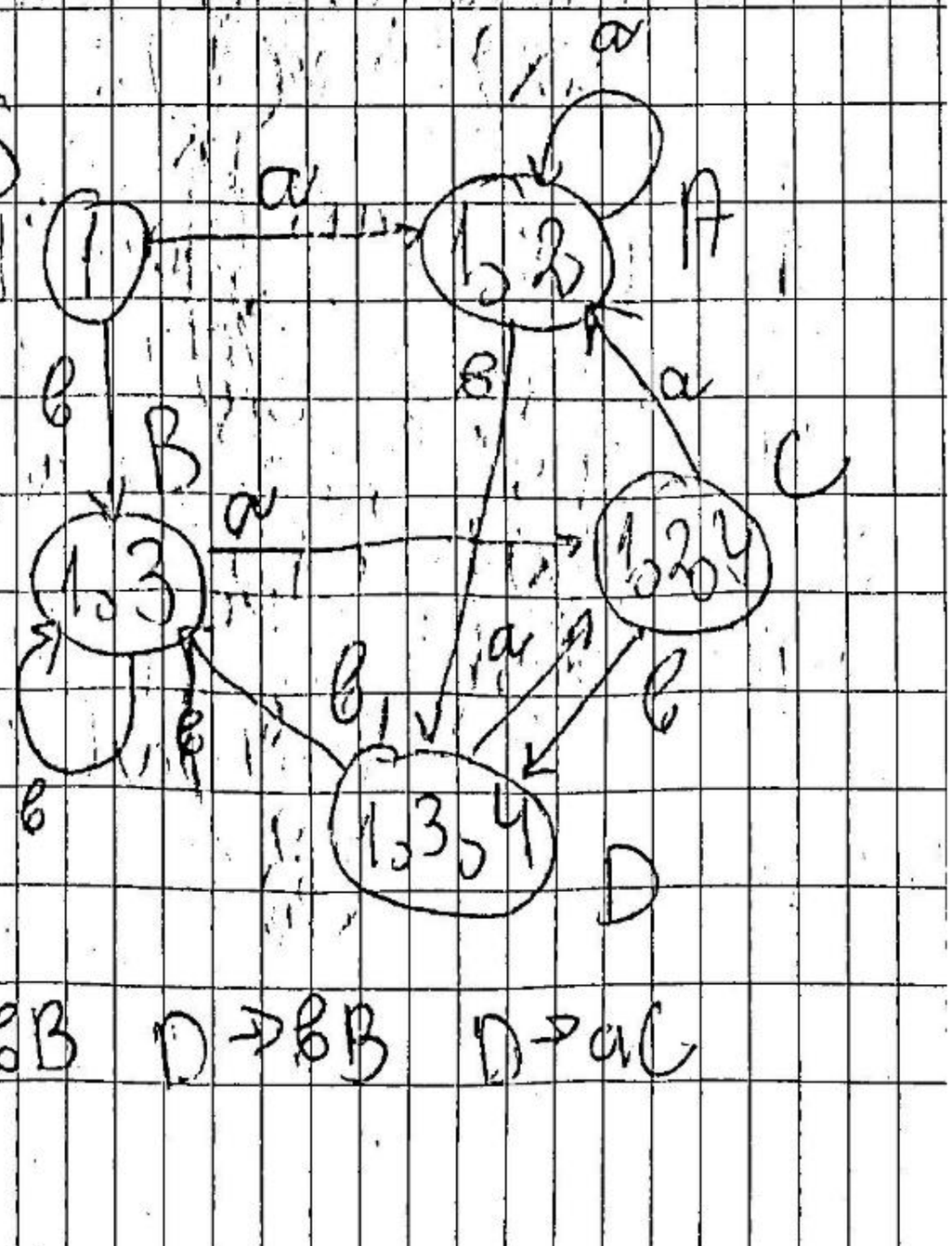
$R = (a + b)^* (ab + ba)$



$S \to aS$
$S \to aA$
$S \to bB$
$S \to bB$
$A \to bC$
$B \to aC$
$C \to \Lambda$

Зад на преобразуване

	a	b
{1}	{1,2}	{3}
{1,2}	{1,2}	{3}
{1,3}	{1,2,4}	{3}
{1,2,4}	{1,2}	{3}
{1,3,4}	{1,2,4}	{3}



$S \to aA \quad B \to bB$
$S \to bB \quad B \to aC$
$A \to aA \quad A \to bD \quad C \to aA \quad C \to bB \quad D \to bB \quad D \to aC$
$D \to \Lambda \quad C \to \Lambda$

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

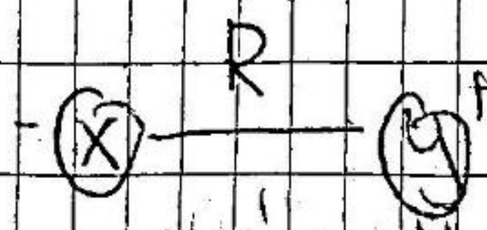
$N = \{S, A, B, C, D\}$

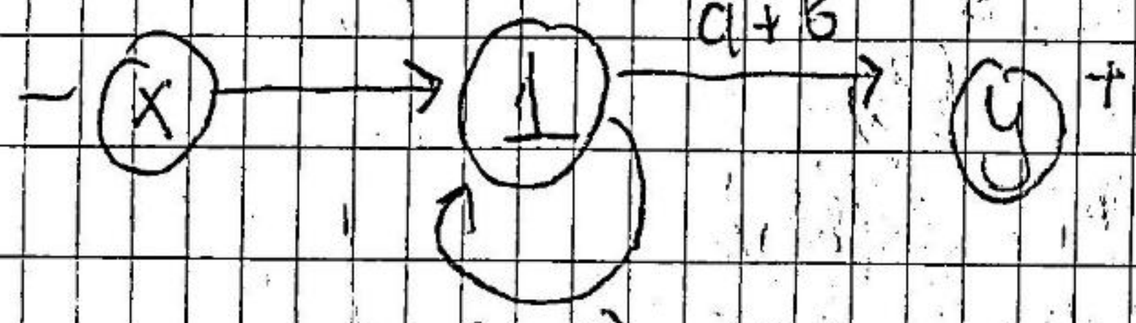
$P = \{P_i = h_i = L \mid i = \overline{1,12}\}$

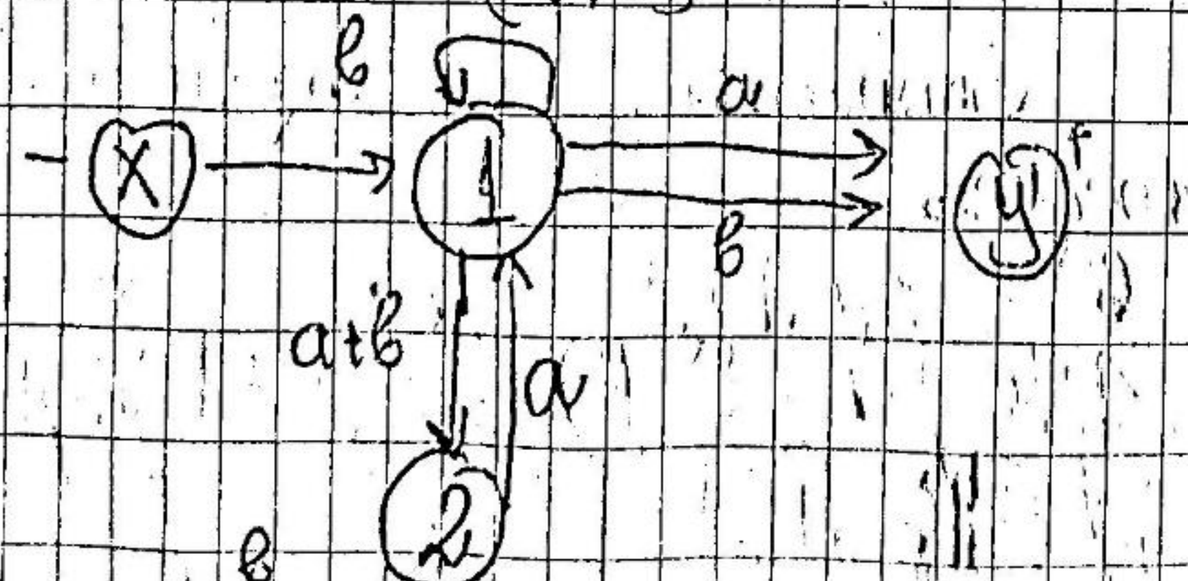
$G = \{S, \Sigma, N, P\}$

Задача

$R = [b + (a+b)a]^* (a+b)$



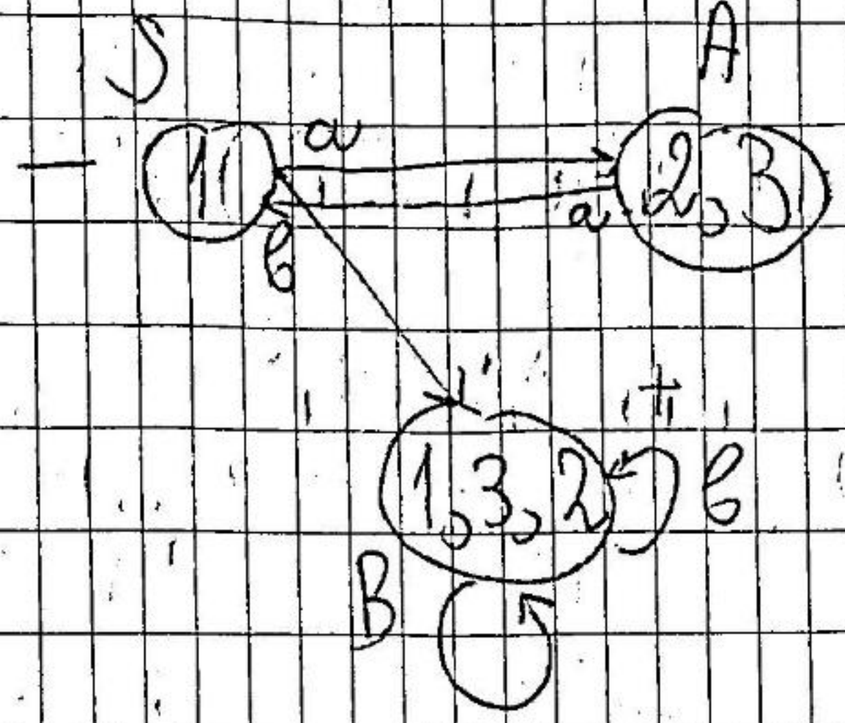




неопределен по входу 1

Таблица

	a	b
{1}	{2,3}	{1,3,2}
{2,3}	{1}	{∅}
{1,3,2}	{2,3}	{1,3,2}



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

$N = \{S, A, B\}$

$P = \{P_i \mid i = \overline{1 \div 7}\}$

$G = \{S, \Sigma, N, P\}$

$S \to aA$ $A \to aS$ $A \to \Lambda$

$S \to bB$ $B \to BB$ $B \to \Lambda$

$B \to aB$

Зад 10

$R = [(a + bc)(ab)^* b]$

$S \to aA \quad S \to bB$

$A \to bS \quad A \to aC$

$B \to cA \quad S \to \Lambda$

$C \to bA$

$Z = \{a, b, c\}$

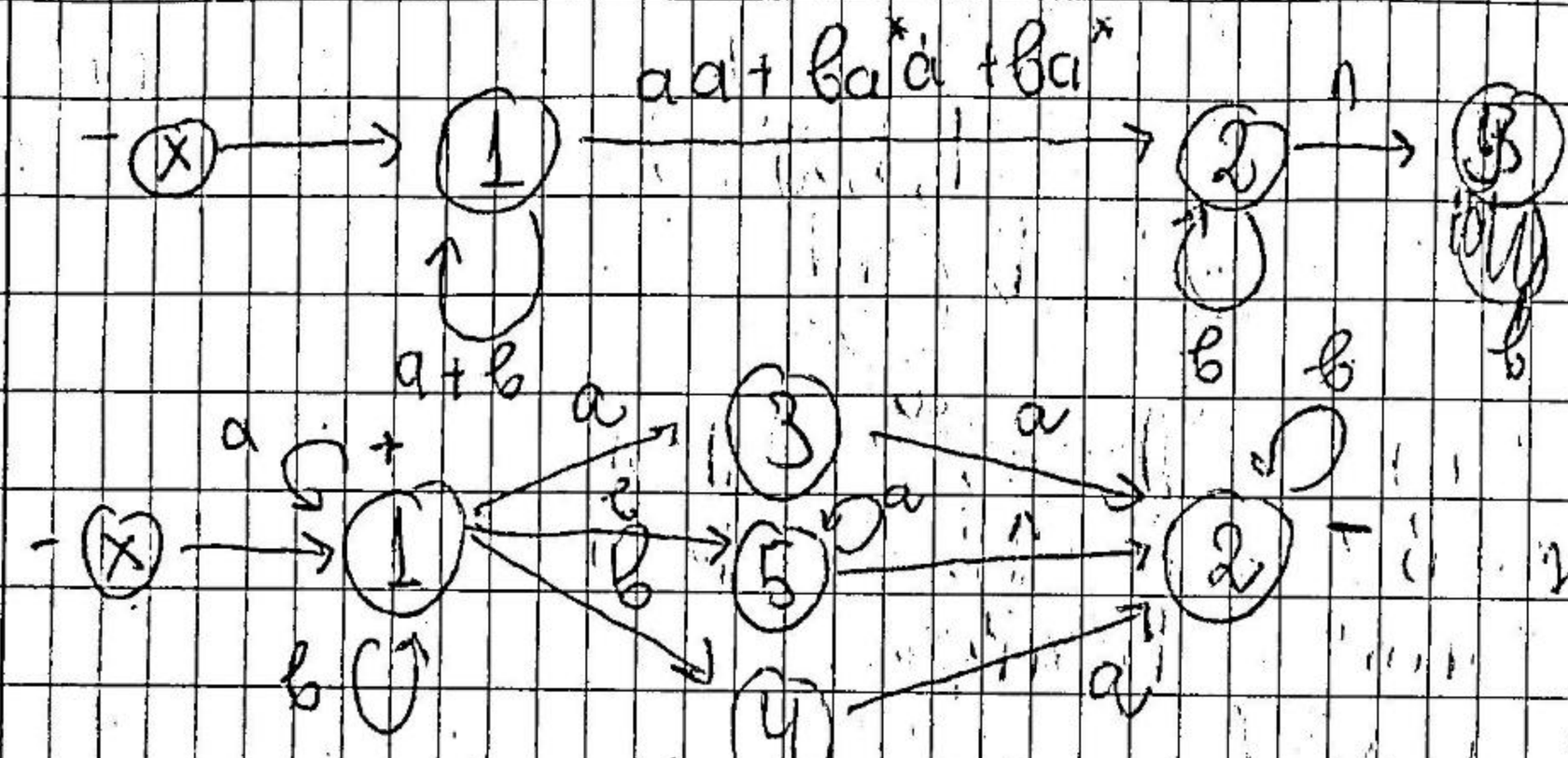
$N = \{S, A, B, C\}$

$P: \{P_1 | P_2 | \dots | P_n\}$

$G = \{S, N, P\}$

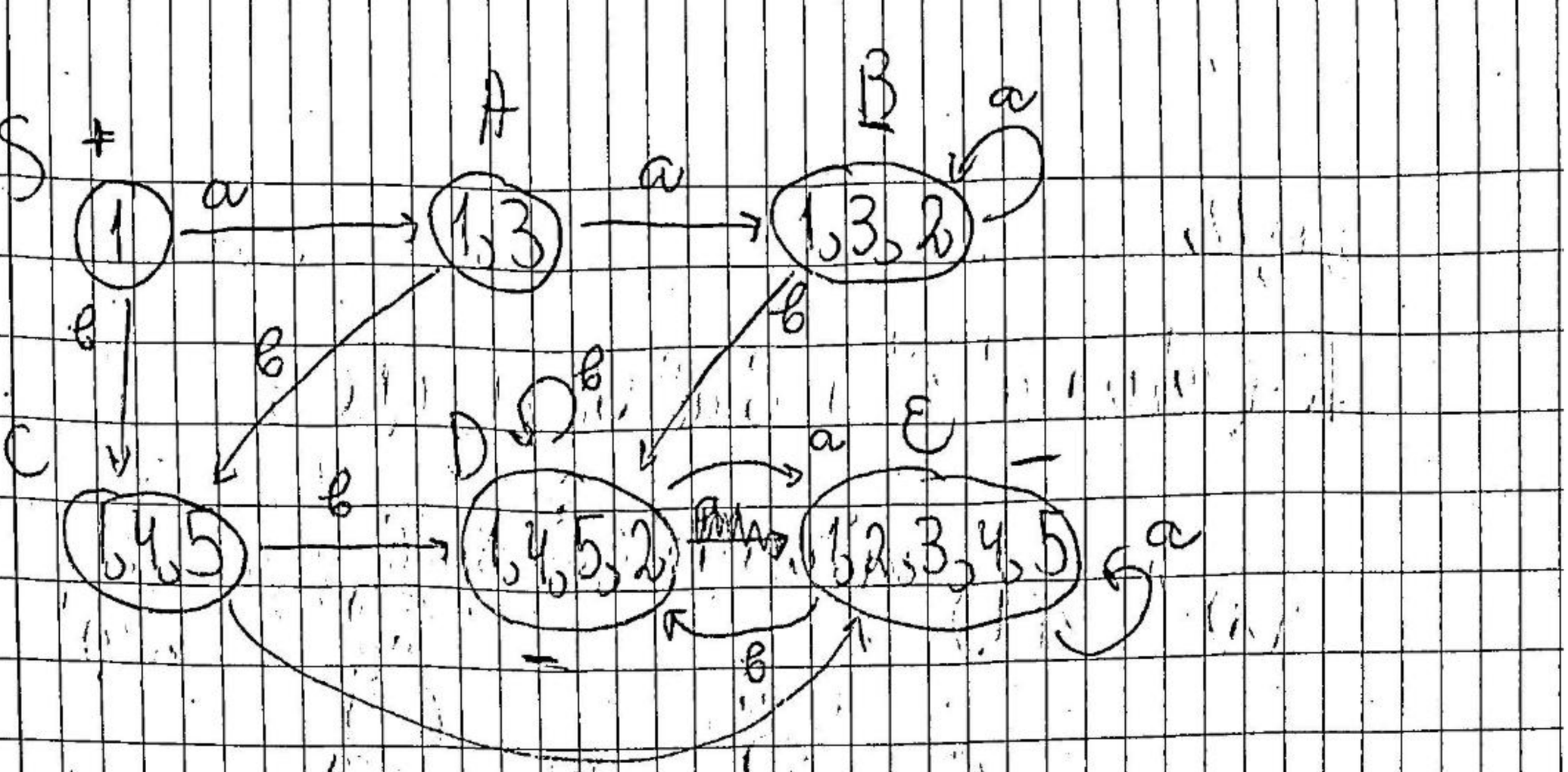
Зад 11

$R = (a+b)^* \cdot (aa + ba^*a + ba^*) \cdot b^*$



Подбиши на преходите

	a	b
S	{1}	{1,3}	{1,4,5}
A	{1,3}	{1,3,2}	{1,4,5}
B	{1,3,2}	{1,3,2}	{1,4,5,2}
C	{1,4,5}	{1,3,4,2}	{1,4,5}
D	{1,4,5,2}	{1,3,4,2}	{1,4,5,2}
E	{1,2,3,4,5}	{1,3,2,4,5}	{1,4,5,2}



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

$N = \{S, A, B, C, D, E\}$

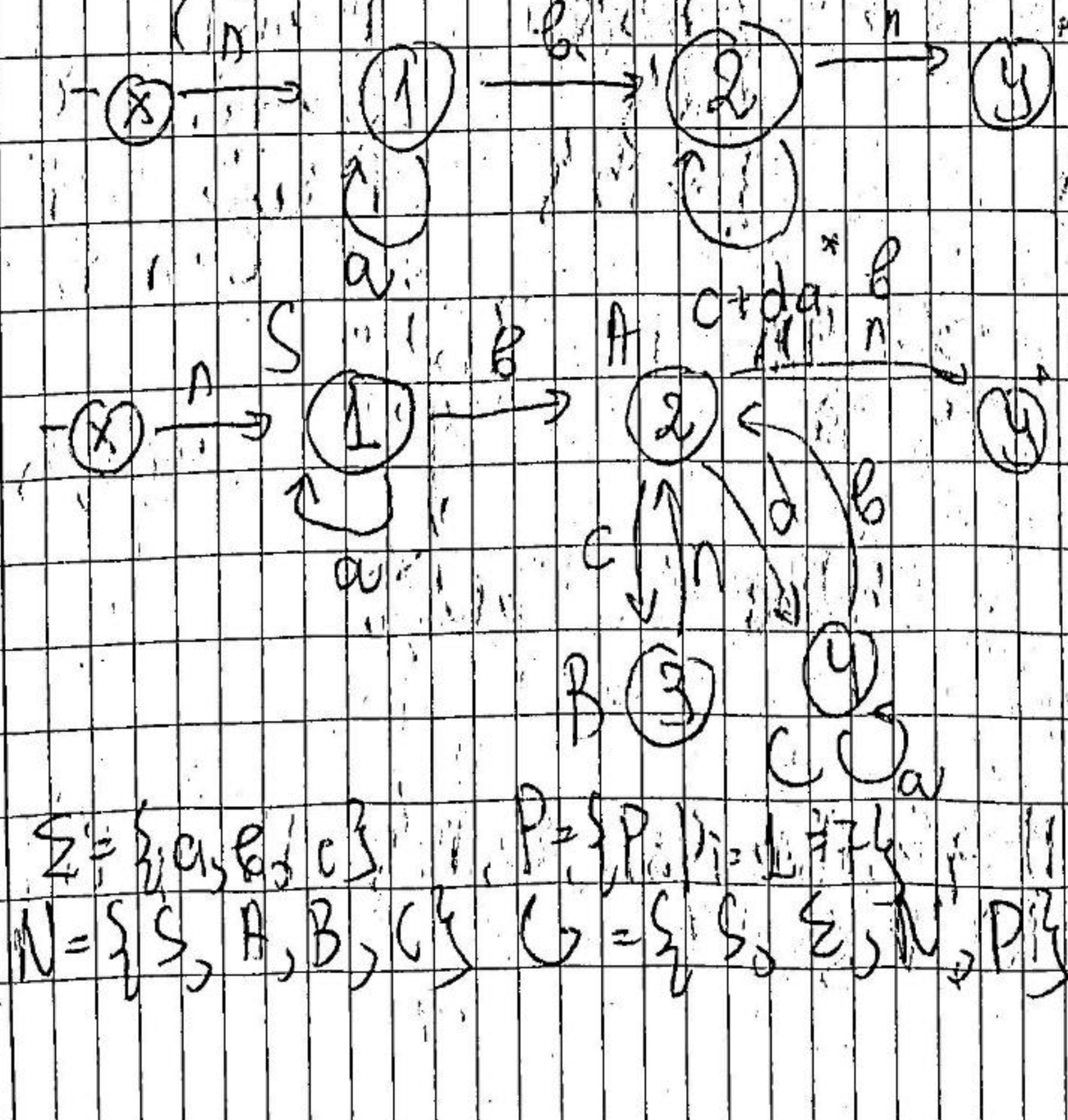
$P = \{P_i \mid i = 1 \div 15\}$

$G = \{S, \Sigma, N, P\}$

$S \to aA$	$S \Rightarrow bC$	
$A \to aB$	$A \to bC$	
$B \to aB$	$B \to bD$	
$C \to aE$	$C \to bD$	
$D \to aE$	$D \to bD$	
$E \to aE$	$E \to bD$	
$B \to \Lambda$	$D \to \Lambda$	$E \to \Lambda$

Zad 1

$R = a^* b (c + da^*) b$



Omegaleu

$S \to aS$

$S \to bA$

$A \to cB, \quad A \to dC$

$B \to \Lambda A$

$C \to bA$

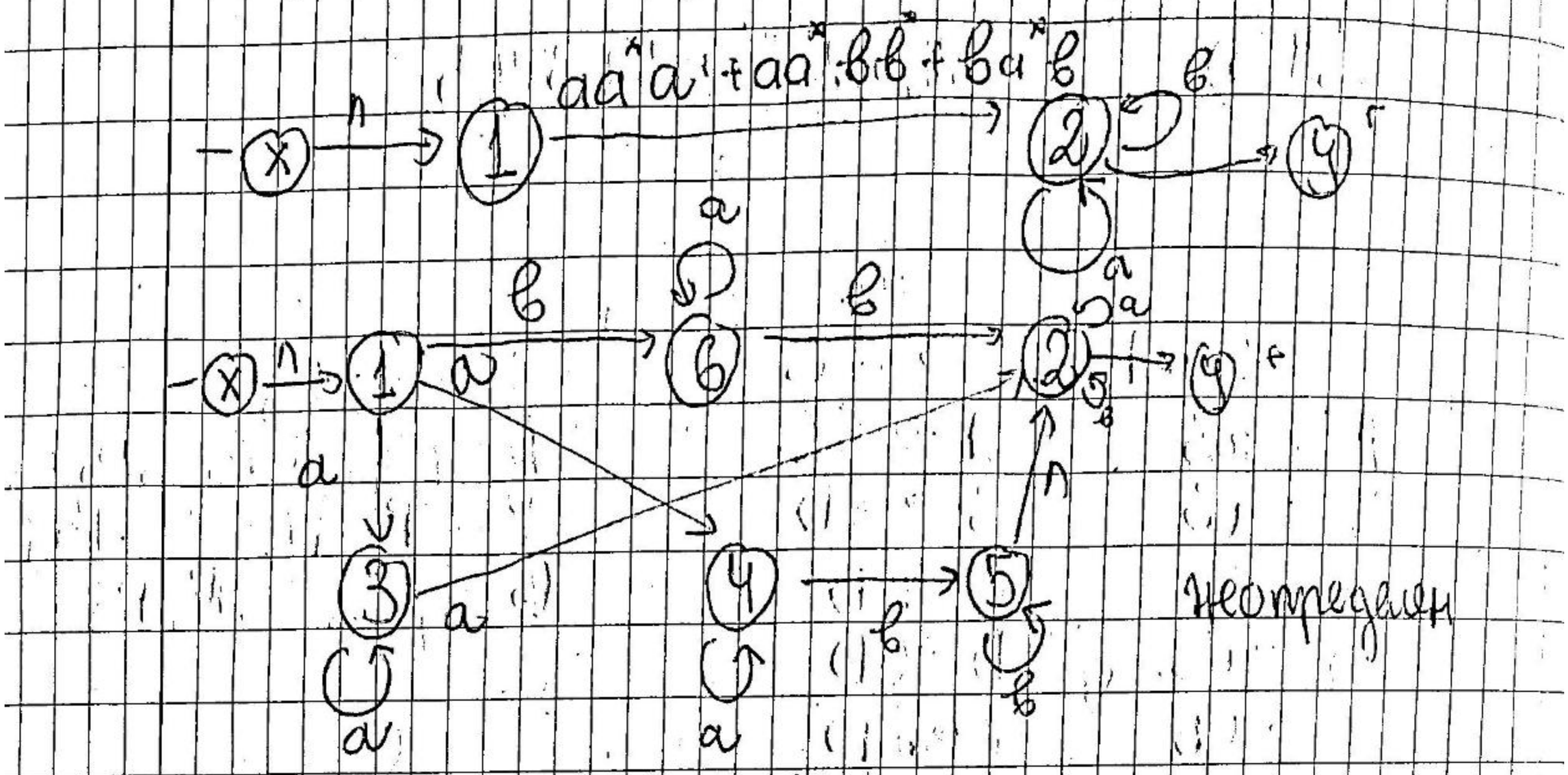
$A \to \Lambda$

$\Sigma = \{a, b, c\}, \quad P = \{P_i \mid i = 1 \div 7\}$

$N = \{S, A, B, C\} \quad G = \{S, \Sigma, N, P\}$

zad 12

$R = (a^+ a + a^+ b^+ + b a^* b)(a+b)^*$



	a	b
S	{1}	{6}
A	{3,4}	{5}
B	{6}	{2}
C	{2,3,4}	{2,5}
D	{5}	{5}
E	{2}	{2}
F	{2,5}	{2,5}

$S \to aA \quad S \to bB$

$A \to aC \mid A \to bD$

$B \to aB \quad B \to bE$

$C \to aC \quad C \to bF$

$D \to bD$

$E \to aE \quad E \to bE$

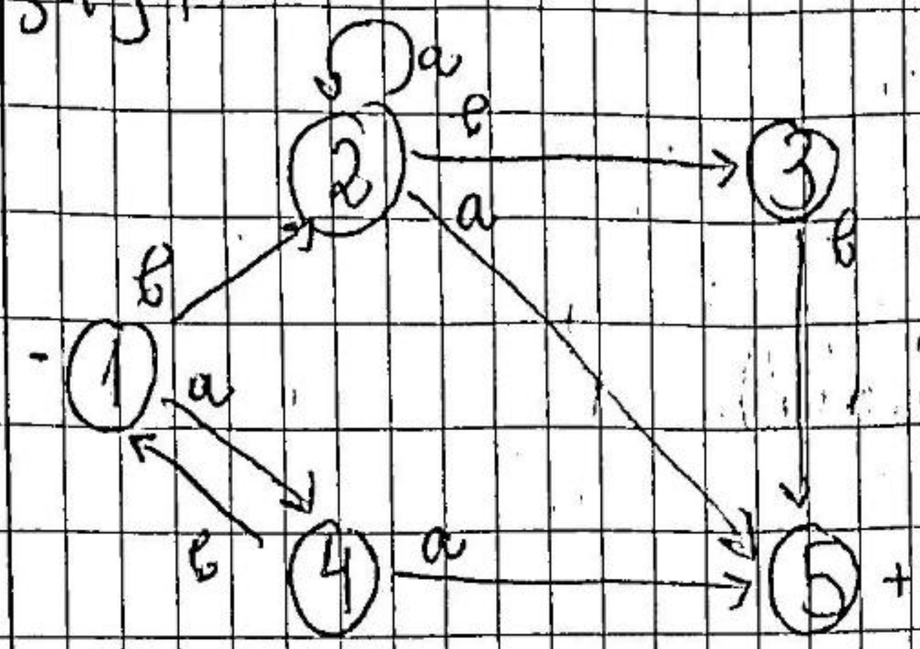
$F \to aE \quad F \to bF$

$C \to \Lambda \quad E \to \Lambda \quad F \to \Lambda$

$\Sigma = \{a, b\}, \quad N = \{S, A, B, C, D, E, F\}, \quad P = \{P_i \mid i = 1 \div 16\}$

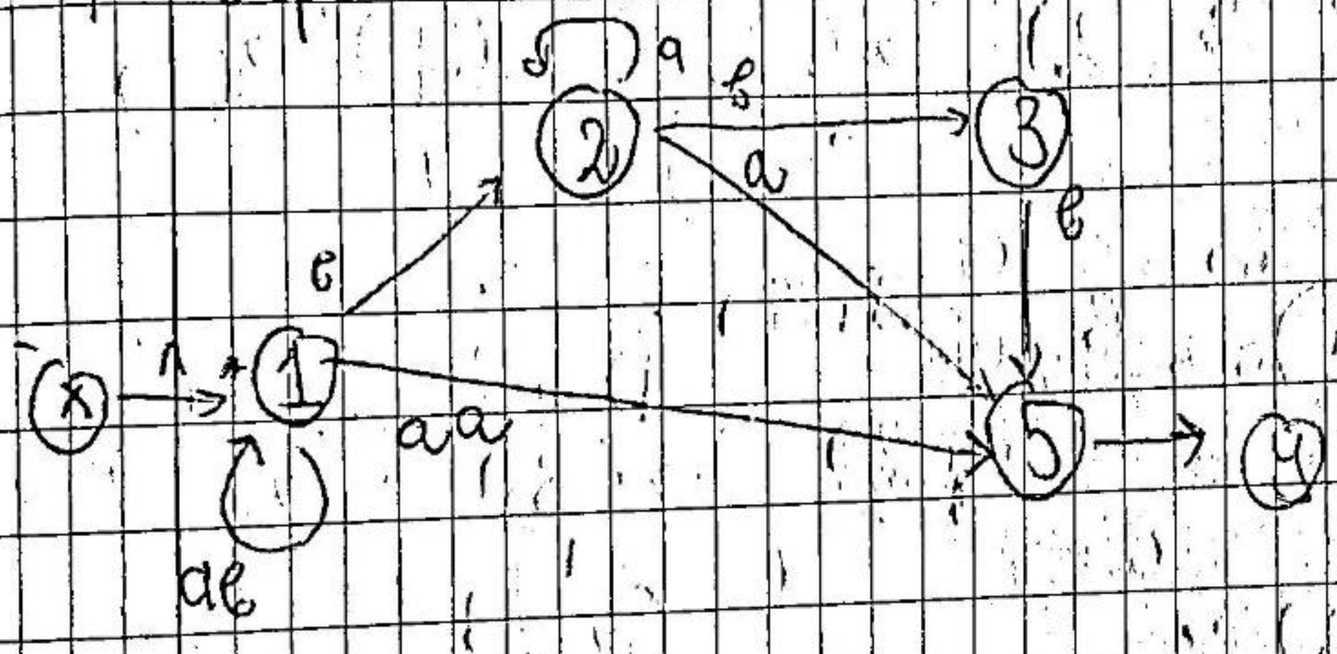
$G = \{S, \Sigma, N, P\}$

Зад 13

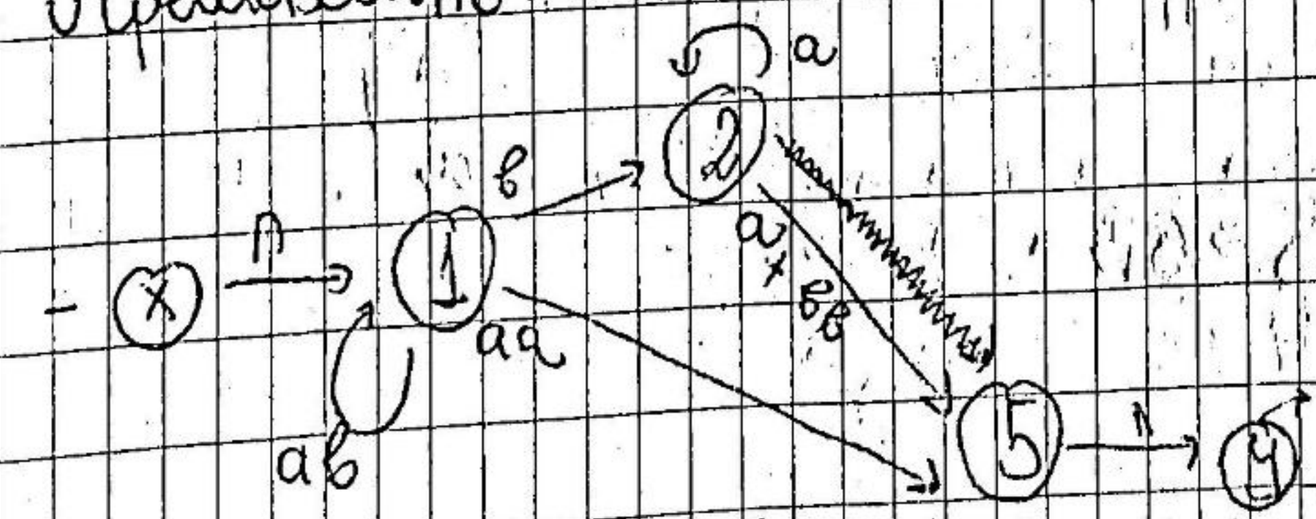


R = ? непределен

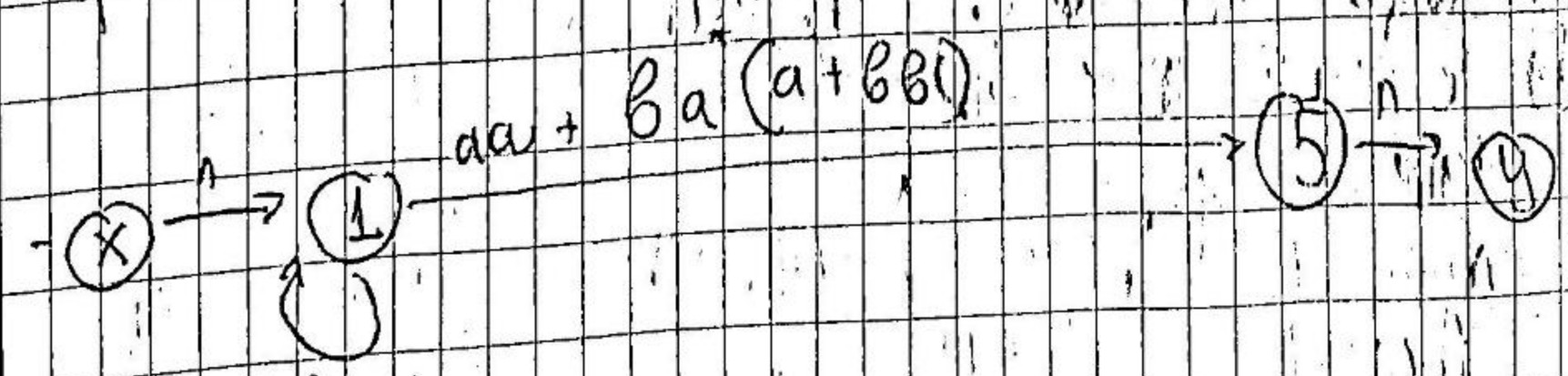
Преназначаване на 4



Преназначаване на 3



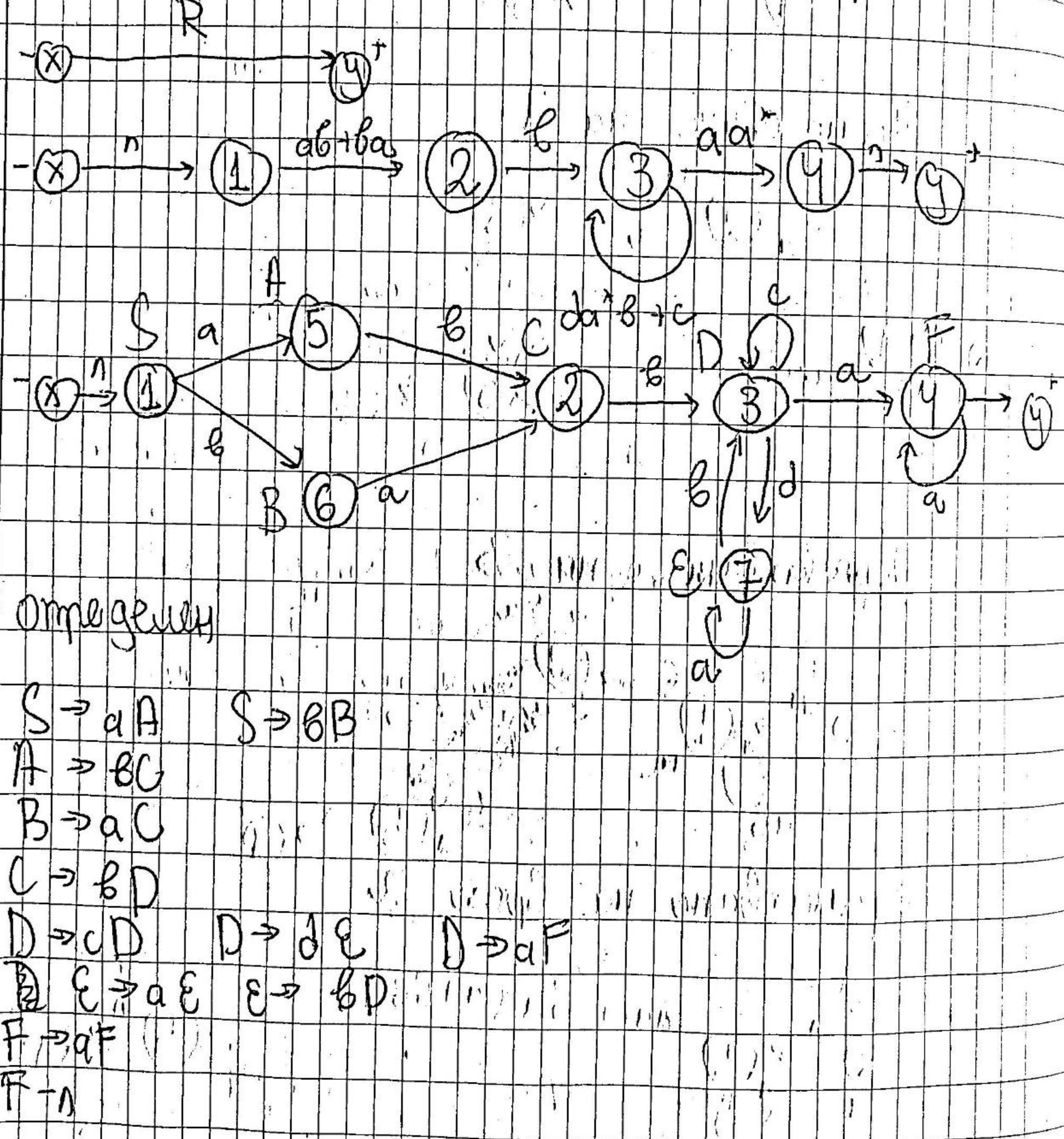
Преназначаване на върхове 2



$$R = (ab)^* \left[aa + ba^* (a + bb) \right]$$

Zad 13

$R = (ab + ba)\, b\, (da^* b + c)^*\, a^+$



Oznaczenia

$S \to aA \quad S \to bB$

$A \to bC$

$B \to aC$

$C \to bD$

$D \to cD \quad D \to dE \quad D \to aF$

$E \to aE \quad E \to bD$

$F \to aF$

$F \to \Lambda$

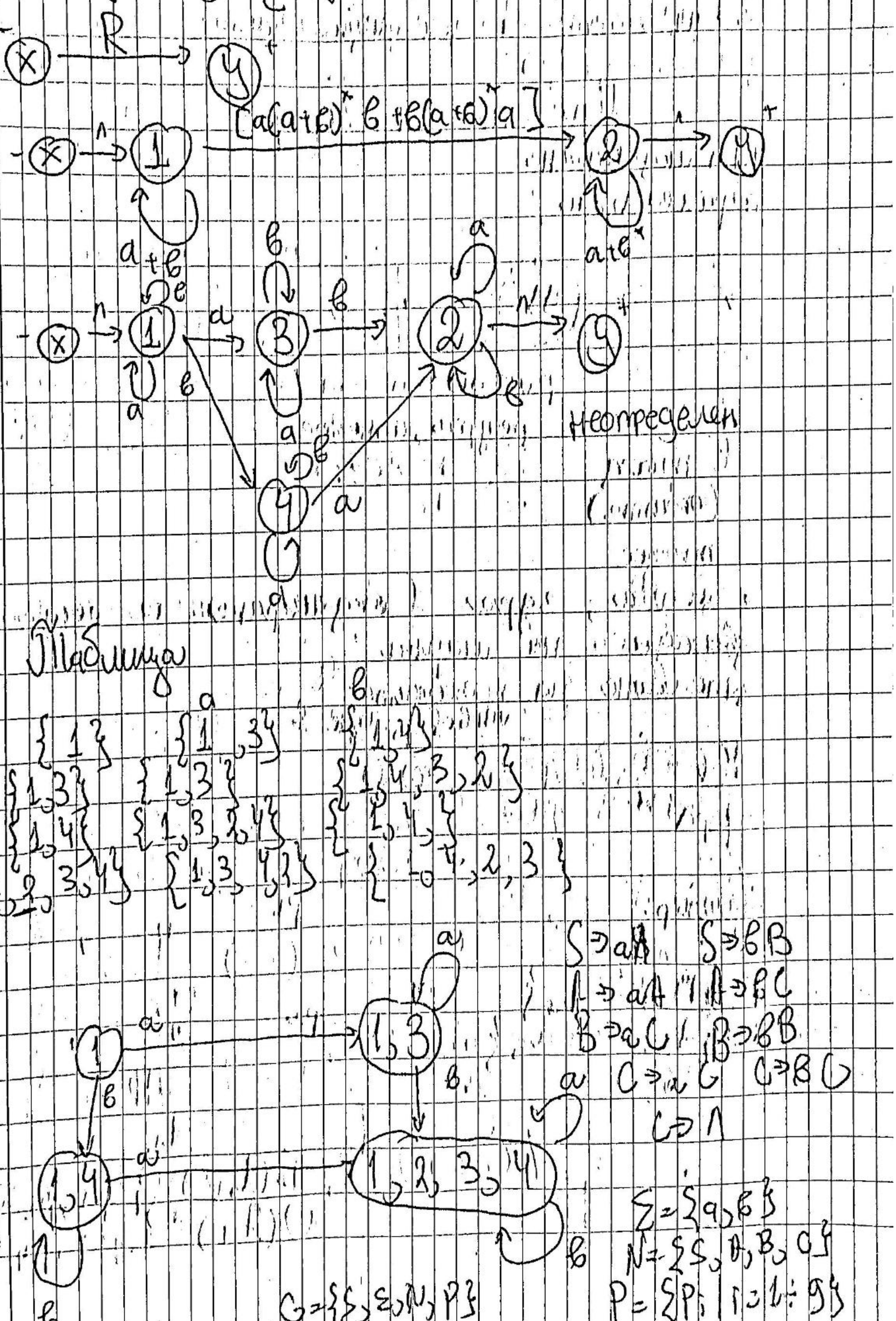
$\Sigma = \{a, b, c, d\} \qquad G = \{S, \Sigma, N, P\}$

$N = \{S, A, B, C, D, E, F\}$

$P = \{p_i : 1 \le i \le 12\}$

Зад 14

$$R = (a+b)^* [a(a+b)^* b + b(a+b)^* a] (a+b)^*$$



Таблица

	a	b
S	{1}	{1,3}
A	{1,3}	{1,2}
B	{1,4}	{1,3,2,4}
C	{1,2,3,4}	{1,3,4}
D	{1,2,3}	{1,3,4}