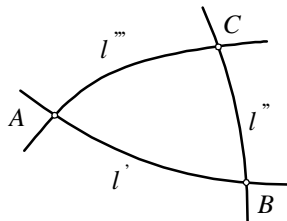


, 3-

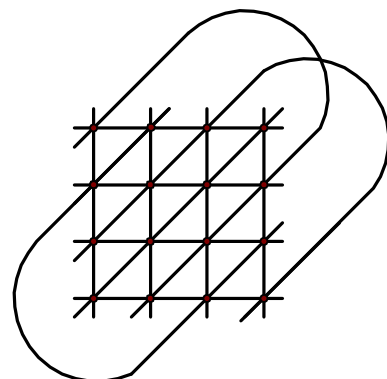
3-

(T, L, I) $T \cap L = \emptyset$ $I \subseteq T \times L$
 $A \in T$ $l \in L$ $(A, l) \in I$ A
 $l, \dots A$ l A

$T = \{A, B, C\}$ $L = \{l', l'', l'''\}$
 $T \cap L = \emptyset$
 $I = \{(A, l'), (B, l'), (B, l''), (C, l''), (A, l'''), (C, l''')\}$
 (T, L, I)



1. 1
 ()
 L_1 ()
 L_2 ()
 L_3 ()
 L_3 " "



Crte` 1

L_3 L_1, L_2 L_3 4 $L = L_1 \cup L_2 \cup L_3$ L_1, L_2
 4 L_3 : T 16

R1

$L_i, L_j \quad i, j \in \{1, 2, 3\}$

$T;$

R2

T

“ ” 3- , :
 T . L_1, L_2, L_3
 T ,
 L_1, L_2, L_3 . (T, L_1, L_2, L_3)

3-

R1

3-

(T, L_1, L_2, L_3)

$(T, L), (L = L_1 \cup L_2 \cup L_3)$.

1.

3- ?

3-

$L_i, i \in \{1, 2, 3\}$

3-

$L_i, L_j, i, j \in \{1, 2, 3\}$:

$l \quad k- \quad (l \in L_k, k \neq i, j)$.

$i-$

L_i

$k-$

l

,

l'

$i-$

,

$l' \in L_i$

$l \in L_k$

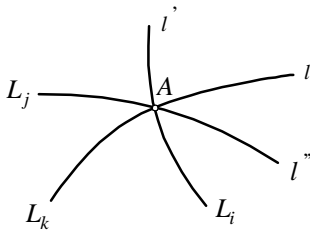
$A \in T($

2).

A

,

$j-$



l'' .

$l' \in L_i$

\tilde{n}

$l'' \in L_j \dots l' \leftrightarrow l''$

L_i, L_j

$() i,$

$j \in \{1, 2, 3\}$.

Crte` 2

, $l' \leftrightarrow A$

, ...

$i-$

$L_i, i \in \{1, 2, 3\} \tilde{n}$

$k-$

$(k \neq i)$

3-

3-

\tilde{n}

3-

2. 3- $k=5$. 3- 5, 6, 7, . . . 3- 1? $k, k \in \mathbb{N}$.
 . , :
 3- , . . . ?
 3- ?
 .
 $(G, *)$; $*$: $G \times G \rightarrow G$
 $(G, *)$.
 $(G, *)$, “*” - .
 $(G, *)$ $a * x = b$
 $y * a = b$, $a, b \in G$.
 $(\mathbb{Z}, -)$ \mathbb{Z} , “-”
 $a - x = b$ $y - a = b$ $x = a - b$
 $y = a + b$ \mathbb{Z} , $a, b \in \mathbb{Z}$.
 .
 $(G, *)$ $a * x = b$ y
 $* a = b$ (G) , $a, b \in G$.
 2. (\mathbb{Z}, \bullet) ? (\mathbb{R}, \bullet) \mathbb{R}
 “•” - ?
 $(\mathbb{R} \setminus \{0\}, \bullet)$?
 . “ ” , 3- .
 .
 (T, L) , $(L = L_1 \cup L_2 \cup L_3)$ 3- $k, k \in \mathbb{N}$.
 $Q = \{a, b, c, \dots\}$ () k .
 $L_i, i \in \{1, 2, 3\}$ 3- k , i -
 $L_i, (i \in \{1, 2, 3\})$ Q (
 Q
 $l \tilde{n}$
 $a \in Q$, $[i, a]$.
 L_1 Q ; ,
 L_2 Q ;
 L_3 Q ;
 Q
 Q
 :
 $a, b \in Q$. $[1, a]$ $[2, b]$ 3-
 (a, b) . (a ,
 b - , a b 3-
 (a, b) , 3-
 $c \in Q$. . . (a, b) $[3, c]$.

$a \bullet b = c$, Q

“•” , $a \bullet x = b$

Q , $a, b \in Q$.

[1, a] [3, b] 3-

2- 2-

$d \in Q$, . . .

[1, a] [3, b]

[2, d]. (,

(a, d)). -

“•” $a \bullet d = b$, -

. . . $a \bullet x = b$ -

$x = d$. ,

$y \bullet a =$

b ($a, b \in Q$), “•”

3- -

: [2, a] [3, b] -

, 1- ,

, -

Q . $f \in Q$. $f \bullet a = b$ $y = f$

Q , . . . (Q, \bullet)

3- (T, L),

3- .

, 3- 1.

3- 4, $Q = \{a, b, c, d\}$ 4 .

3- 3.

, 3-

, :

1- -

2- . (a, a) [1,] 1,

a] [2, a], (a, b) [1, a] [2, b], (a, c)

[1, a] [2, c], .

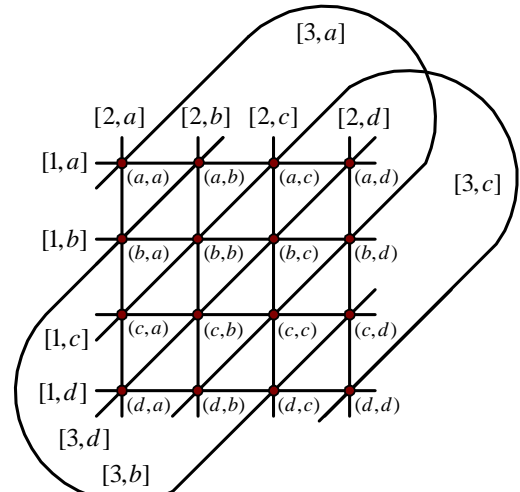
(a, a) 3- [3, a] (3)

$a \bullet a = a$. (a, b) 3 - [3, b],

$a \bullet b = b$; $a \bullet c = c$; .

Q , (Q, \bullet) (1).

, (Q, \bullet) -



•	a	b	c	d
a	a	b	c	d
b	b	c	d	a
c	c	d	a	b
d	d	a	b	c

Tablica 1

$L_i, (i \in \{1, 2, 3\})$ $Q = \{a, b, c, d\}$

4.

$Q, (Q)$

k, Q, k

“•” “ ” “ ” “ ”

$\left(\begin{array}{l} [1,x] [2,y] [3,z] \\ x \cdot y = z \end{array} \right)$

$3! = 6$

$3! = 6$

$Q,$

$k (k \in \mathbb{N})$

“ ” “ ”

Q, Q

$i - (i \in \{1, 2, k\})$

5.