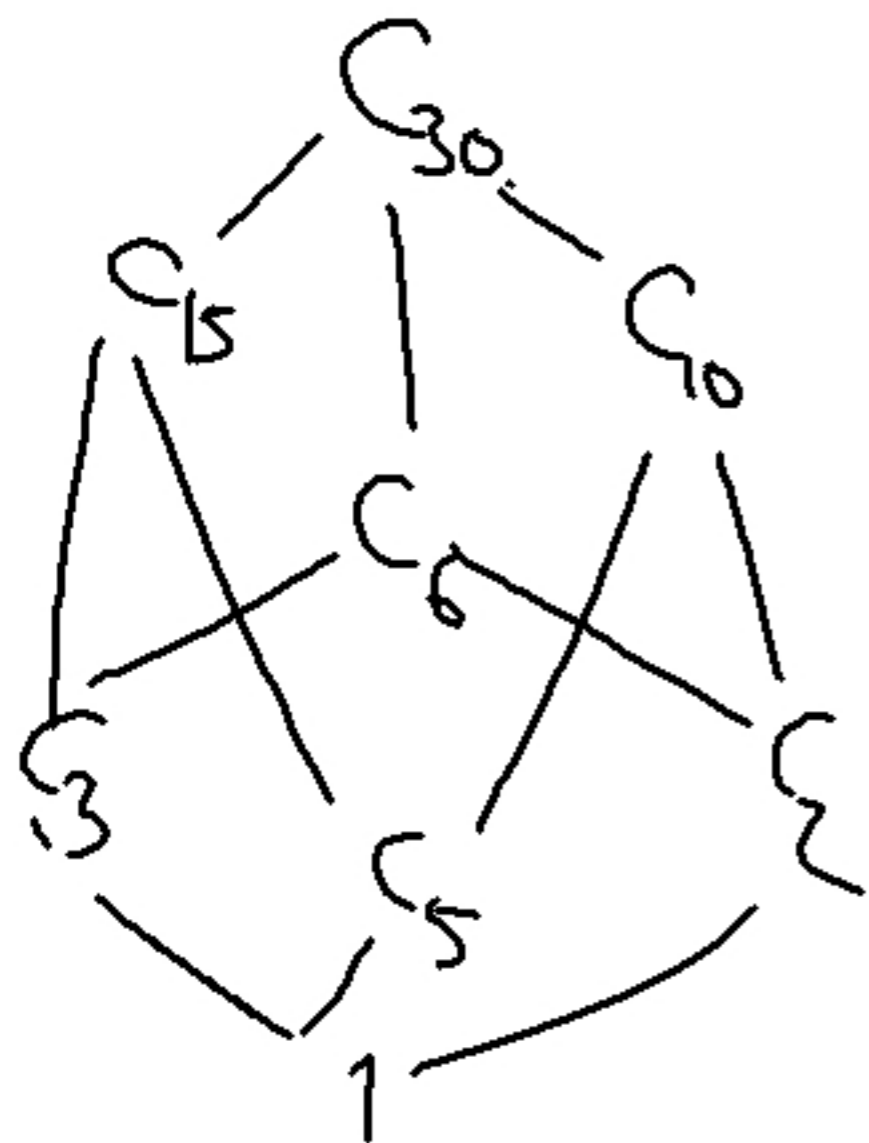


Lösningar

① C_{30}

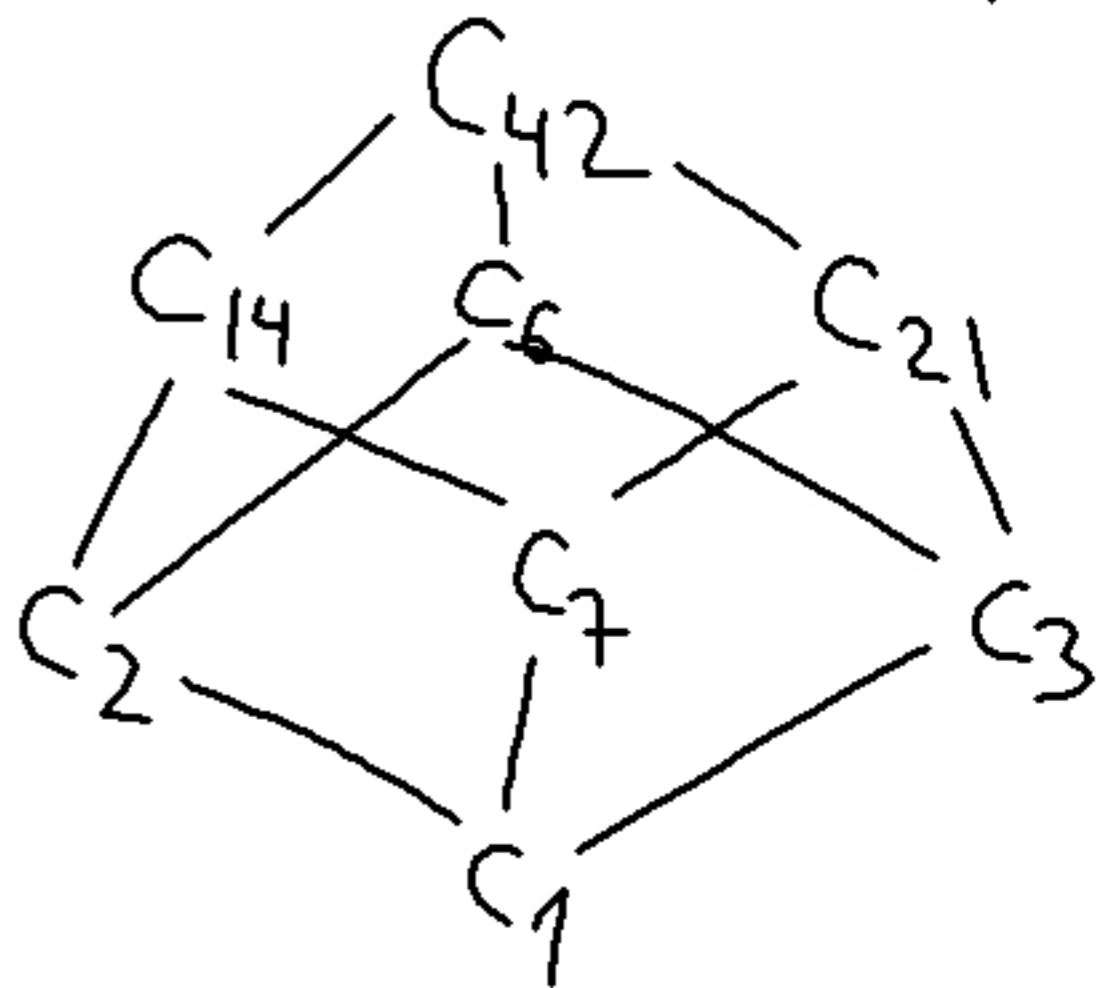
30 har följande delare:

30, 15, 10, 6, 5, 3, 2, 1



C_{42}

42, 14, 21, 7, 6, 3, 2, 1



②

$$\tau = (3456)(12)(789)$$

$$\sigma \begin{matrix} \downarrow \downarrow \downarrow \downarrow \\ \downarrow \downarrow \\ \downarrow \downarrow \downarrow \end{matrix} \begin{matrix} \downarrow \downarrow \\ \downarrow \downarrow \downarrow \end{matrix} \begin{matrix} \downarrow \downarrow \\ \downarrow \downarrow \downarrow \end{matrix}$$

$$\pi = (1289)(37)(564)$$

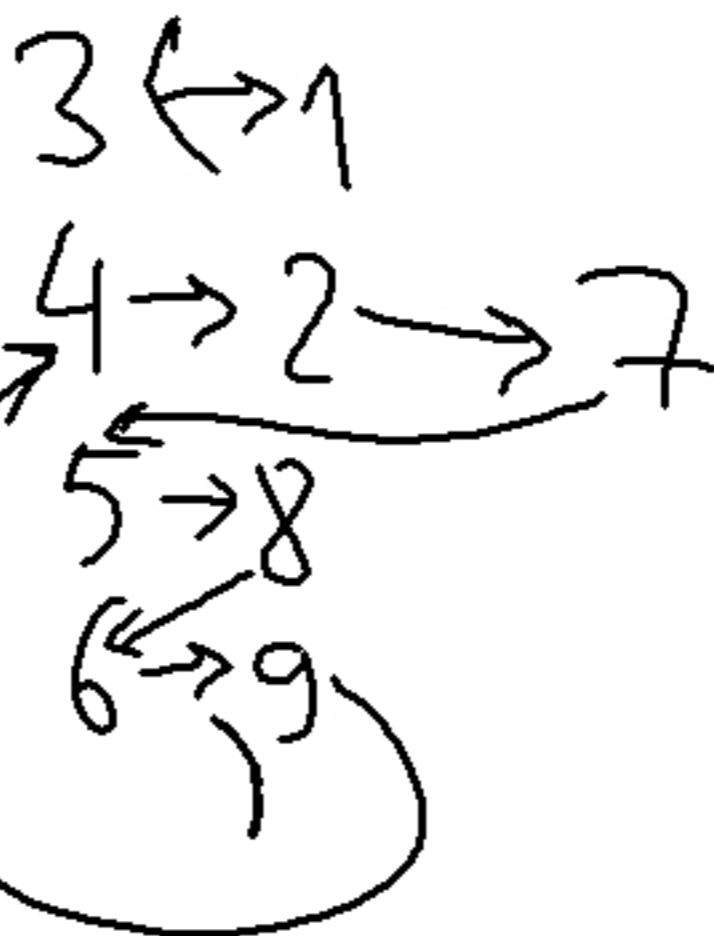
$$\sigma \text{ är } (13)(4275869)$$

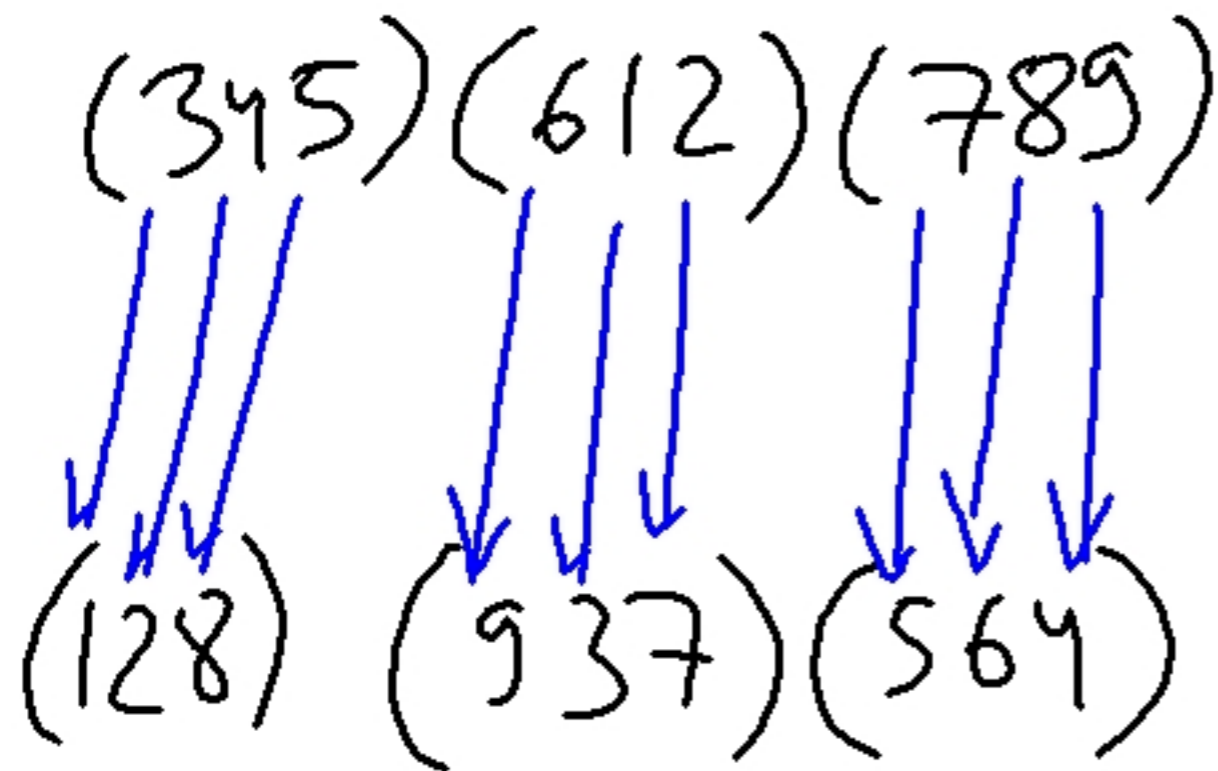
ordningen
är
 $2 \times 7 = 14$

$$\sigma^{-1} \pi \sigma = \tau$$

$$\sigma = (46)(49)(48)(45)(47)(42)(18)$$

$$\text{tecken} = (-1)^7 = -1$$





ordningen
 14,
 tecken - 1.

$$3 \leftrightarrow 1$$

$$4 \rightarrow 2 \rightarrow 7 \rightarrow 5 \rightarrow 8 \rightarrow 6 \rightarrow 9 \rightarrow 4$$

Invertierbara element

$i \in \mathbb{Z}_{12}$:

ej cyklisk

$0 \cdot 0 = 0$ 5 $10 \cdot 6 = 0$
 1 $6 \cdot 2 = 0$ 11
 $2 \cdot 6 = 0$ 7
 $3 \cdot 4 = 0$ $8 \cdot 3 = 0$
 $4 \cdot 3 = 0$ $9 \cdot 4 = 0$

	1	5	7	11
1	1	5	7	11
5	5	1	11	7
7	7	11	1	5
11	11	7	5	1

i 25

$0 \cdot 5 = 0$

$6 \cdot 5 = 0$

11

1

7

$12 \cdot 5 = 0$

2

8

13

$3 \cdot 5 = 0$

$9 \cdot 5 = 0$

4

$10 \cdot 3 = 0$

14

$5 \cdot 3 = 0$

invertierbar element:

	1	2	4	7	8	11	13	14
1	1	2	4	7	8	11	13	14
2	2	4	8	14	1	7	11	13
4	4	8	1	13	2	14	7	11
7	7			4				
8	8				4			
11	11					1		
13	13						4	
14	14							1