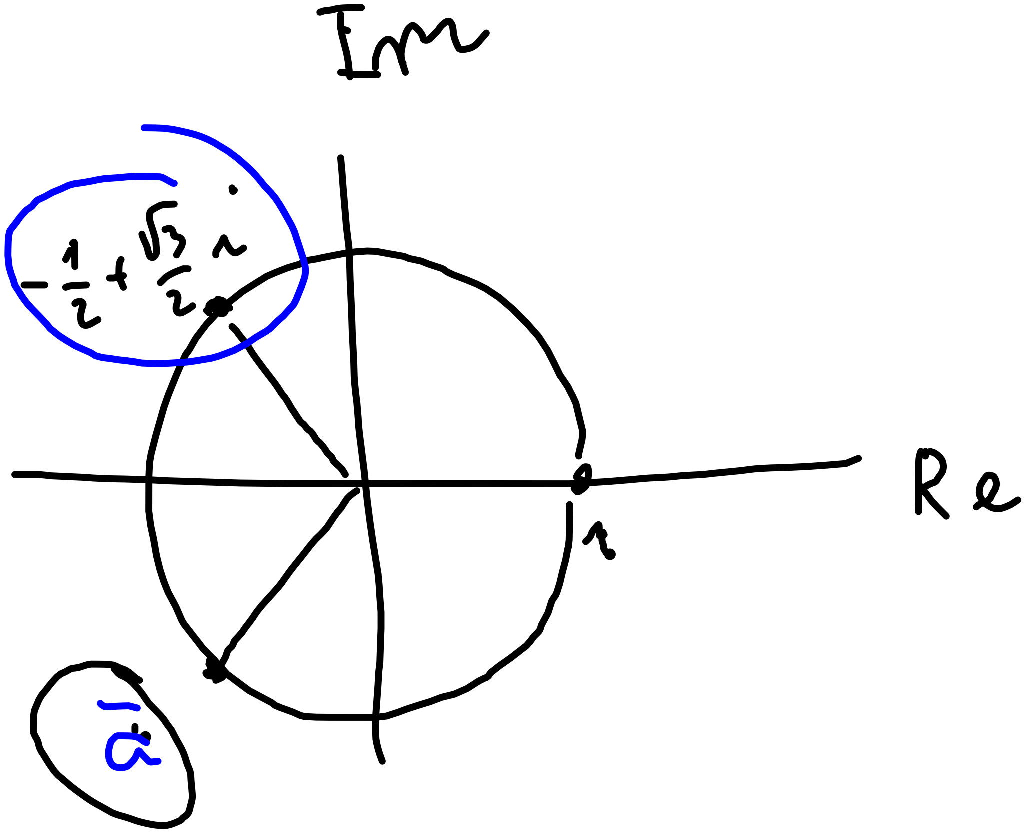
$$\cdot/\cdot = \{a, \underset{\uparrow \atop \bar{a}}{a^2}, \underset{\uparrow \atop 1}{a^3}\}$$



$$\{z \in \mathbb{C},\ z^3 = 1\}$$

$$\cdot/\cdot = \{1, \overbrace{-\frac{1}{2}+\frac{\sqrt{3}}{2}i}^{a}, \overbrace{-\frac{1}{2}-\frac{\sqrt{3}}{2}i}^{\bar{a}}\}$$

$n = \{1, 2, 3\}$

$c = (3, 1, 2) \in \Sigma_3$

$\approx \begin{pmatrix} 1 & 2 & 3 \\ 3 & 1 & 2 \end{pmatrix}$ je cyklus

→ píšeme $(1\ 3\ 2)$ ⇝ délka cyklu

transpozice = cyklus délky 2

$$\begin{pmatrix} 1 & 2 & 3 \\ 3 & 1 & 2 \end{pmatrix} = \begin{pmatrix} 1 & 2 & 3 \\ 2 & 1 & 3 \end{pmatrix} \circ \begin{pmatrix} 1 & 2 & 3 \\ 3 & 2 & 1 \end{pmatrix}.$$

$\rightarrowtail (1\ 3\ 2) = (3\ 2\ 1) = (2\ 1\ 3)$

$\simeq (1\ 2) \circ (1\ 3)$

obecněji $(x, y, z) = (x\ y) \circ (x\ z)$

obecně

$$(x_1 \cdot \ldots \cdot x_\ell) = (x_1 x_2) \circ \cdots \circ (x_1 x_{\ell-1}) \circ (x_1 x_\ell)$$

cyklus délky ℓ

$\ell - 1$ transpozic

$$M = \{1, 2, 3, 4, 5\}$$

$$\sigma = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 4 & 5 & 1 & 3 \end{pmatrix}$$

$$= \begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 4 & 3 & 1 & 5 \end{pmatrix} \circ \begin{pmatrix} 1 & 2 & 3 & 4 & 5 \\ 1 & 2 & 5 & 4 & 3 \end{pmatrix}$$

$$= (1\,2\,4) \circ (3\,5)$$

$$= (3\,5) \circ (1\,2\,4) \quad !$$

$$M = \{1, 2, 4\} \cup \{3, 5\}$$

$$\{1,2,4\} = M_1 = M_2 = M_4 \qquad \{3,5\} = M_3 = M_5$$

M nějaká m-prvk. množina

$\sigma \in \Sigma_m$

$x \in M \rightsquigarrow M_x := \{x, \sigma(x), \sigma^2(x), \sigma^3(x) \dots\}$

$$f : \mathbb{R}^2 \to \mathbb{R}^2$$

$$f(x) = A \cdot X + P$$

$$\begin{pmatrix} \cdot & \cdot \\ \cdot & \cdot \end{pmatrix}$$

vektor

D_k = grupa sym. prav. k-úh.

$C_k \subset D_k$

přímé sym.