

$\overline{i_1 \dots i_\ell}$ cycle length $\ell = \ell$ cycle

$i_1 = \text{minimum}$

1 cycle \bar{i}

Bahn von a $\pi^{\mathbb{N}}(a) = \frac{\pi^i(a)}{i \geq 0} = \{a: \pi(a) : \pi(\pi(a)) : \dots\} = \pi^{\mathbb{Z}}(a) \subset 1|n$

$\pi = \gamma^1 \dots \gamma^k$ unique disjoint commuting cycles

$$\gamma^1 = \pi^{\mathbb{N}}(1)$$

$$\gamma^2 = \pi^{\mathbb{N}}(\text{Min } 1|n \setminus \gamma^1)$$

$$\pi = \frac{1\ 2\ 3\ 4\ 5\ 6\ 7}{4\ 2\ 7\ 1\ 3\ 6\ 5} = \overline{14\ 2\ 3\ 7\ 5\ 6} = 14|2|375|6 = 6|375|2|14$$

Bahn von 1: 2: 3: 6

insertion $b^1 \dots b^n$ $\left\{ \begin{array}{l} \text{permutation} \\ \text{absteigende Minima} \end{array} \right.$

$$b^1 < \dots < b^{i_1} | b^{i_1+} < \dots < b^{i_2} | \dots | b^{i_k+} < \dots < b^n$$

$$b^1 > b^{i_1+} > b^{i_2+} > \dots > b^{i_k+}$$

cycle symbol $\bar{\pi} = 6|375|2|14$

geordnet nach absteigenden minima $6 > 3 > 2 > 1$

$$\pi = 457819326 \Leftrightarrow \bar{\pi} = 693714825$$

$$\pi = 457819326 = \frac{1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9}{4\ 5\ 7\ 8\ 1\ 9\ 3\ 2\ 6} = \overline{14825|37|69} = \overline{69|37|14825} = 69|37|14825$$