

a)

Data partition Ordinal patterns

	0 1 2	Sorting	1 2 0
$x_t = (8, 1, 6, 4, 2, 3)$	8 1 6	→	1 6 8
$x_t = (8, 1, 6, 4, 2, 3)$	1 6 4	→	1 4 6
⋮			⋮
$x_t = (8, 1, 6, 4, 2, 3)$	4 2 3	→	2 3 4

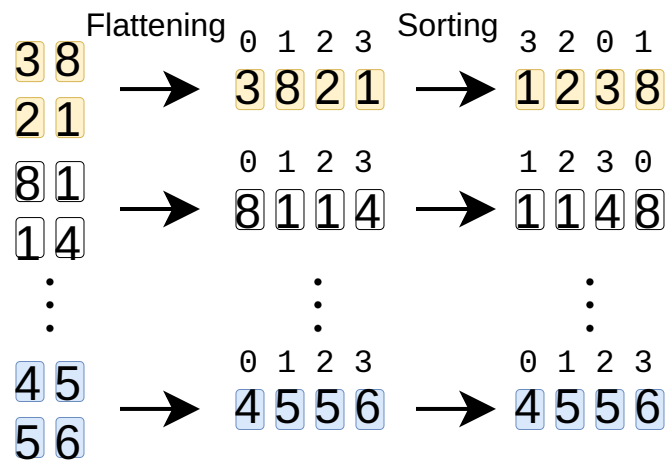
$$\pi_p = ((1, 2, 0), (0, 2, 1), (2, 1, 0), (1, 2, 0))$$

b)

$$y_t^u = \begin{pmatrix} \boxed{3} & \boxed{8} & 1 & 0 \\ \boxed{2} & \boxed{1} & \boxed{4} & \boxed{5} \\ 6 & 7 & \boxed{5} & \boxed{6} \end{pmatrix}$$

Data
partition

Ordinal
patterns



))

$$\pi_q^p = \begin{pmatrix} (\boxed{3}, \boxed{2}, \boxed{1}, \boxed{0}) & (1, 2, 3, 0) & (1, 0, 2, 3) \\ (1, 0, 2, 3) & (0, 1, 3, 2) & (0, \boxed{1}, \boxed{2}, \boxed{3}) \end{pmatrix}$$