F_0
??
??
??
F_1
F_2
F_3
F_1
F_2
F_3
F_1
F_2
F_3
X_1
X_2
X_3
X_4
??$_p rogram_p arameters$

??
??
??
X_1
X_2
X_3
X_4
??

X_1
X_2
X_3
X_4

$$R = \sum_{i=1}^{n} R_i = Nn(n+1)2 = 105$$

(1)
n
N

$$T = 1n \sum_{i,j} R_{ij} = 24.5$$

(2)

$$\Delta_i = R_i - Ti = 1 \dots n$$

(3)
0

$$S = \sum_{i=1}^{N} \Delta^2 = 35$$

(4)
$$W = 12 \cdot SN^2(n^3 - n)$$

(5)
0,67
??
i
j
a_{ij}

$$a_{ij} = \begin{cases} 1.5, X_i > X_j \\ 1.0, X_i = X_j \\ 0.5, X_i < X_j \end{cases}$$

(6)
$A =$
$||a_{ij}||$
$K^{(i)}$

$$K^{(i)} = b_i \sum_{j=1}^{n} b_j, b_i = \sum_{j=1}^{n} a_{ij}$$

(7)
2%

$$K^{(i)} = b'_i \sum_{j=1}^{n} b'_j, b'_i = \sum_{j=1}^{n} a_{ij} \cdot b_j$$

(8)
??
2%
X_i
X_1
X_2
X_3