

1. $\chi^2(2) = 0.05 = 5.99$ $f_A = 5$ $f_B = 5$ $f_C = 10$ $f_{eA} = 15$ $f_{eB} = 20$ $f_{eC} = 75$

$\chi^2 = 100/15 + 225/20 + 600/75 = 54.58 > 5.99 \therefore$ 显著存在

2. $\chi^2(2) = 5.99$

	100	200	300	400	500
A	38	24	43	60	170
B	18	22	14	129	180
C	56	91	57	186	350

$\chi^2 = 46.03 > 5.99$
 \therefore 拒绝 H_0

- 1, 14, 3, 4, 0, 3, 8, 14, 3
 7.5, 3.5, 1, 3, 6, 7.5, 3

2. $N_A N_B = U_1 + U_2$ $U_2 = 25 \times 10 - 50 = 200$

- 3, rank: 3, 10, 6, 2, 8.5, 1.4, 7.9

非0: $T_1 = 3 + 10 + 6 + 2 + 8.5 + 1.4 + 7.9 = 48.8$ $T_2 = 2 + 6 + 10 + 1 + 4 + 7.9 = 40.9$ $T_{max} = 37.5$

非0: $T_1 = 3 + 10 + 6 + 2 + 5 + 1.2 + 7.9 = 45.1$ $T_2 = 2 + 1 + 4 + 7.9 = 15$ $T = 6.5$ $N_A = 10$ $T_{max} = 8$

4,

8	13	14	17	18	21	21	23	25	28	30	32	34
A	B	A	A	B	A	B	B	B	B	B	B	B
1	2	3	4	5	6.5	6.5	8	9	10	11	12	13

$U_B = 4.5$ $U_A = 3.5$ $U_{crit} = 4$ 不显著