



8.獨立性檢定

[間斷型資料的統計分析]

~~~~~選擇~~~~~

1. The goodness of fit using the pearson chi square test statistic
2. The independent test (cross analysis) of two discrete random variable
3. The homogenous test
4. One population proportion test(With Replacement)
5. One population proportion test(Without Replacement)
6. Two independent population proportions difference test (With Replacement)
7. Two independent population proportions difference test (Without Replacement)
8. Two dependent population proportions difference test
The proportions are the probability of multi-nomial distribution.
9. return

選擇 2 ,

Output data ,

```
[ This analysis is indepenent test ( cross analysis) ]
There are two discrete type factors A and B.
The A factor has 4 categories, the B factor has 5 categories.
---- the observed sample number of each cell
```

	A1	A2	A3	A4	marginal
B1	30.00	10.00	12.00	21.00	73.00
B2	50.00	15.00	33.00	10.00	108.00
B3	10.00	21.00	17.00	11.00	59.00
B4	4.00	11.00	19.00	31.00	65.00
B5	16.00	6.00	21.00	14.00	57.00
marginal	110.00	63.00	102.00	87.00	362.00

```
---- the expected sample number of each cell
```

	A1	A2	A3	A4	marginal
B1	22.18	12.70	20.57	17.54	73.00
B2	32.82	18.80	30.43	25.96	108.00
B3	17.93	10.27	16.62	14.18	59.00
B4	19.75	11.31	18.31	15.62	65.00
B5	17.32	9.92	16.06	13.70	57.00
marginal	110.00	63.00	102.00	87.00	362.00

```
degree of freedom=12
H0: Factor A and factor B are independent
pearson chi-square test statistic =73.724063
p-value=0.000000
```

