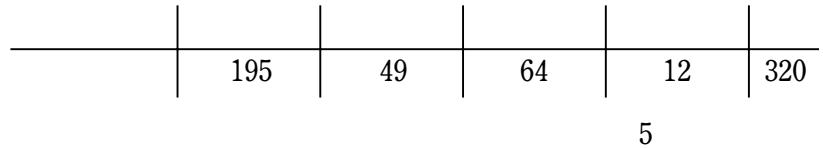


$$\begin{array}{ccccccccc}
& k & & \text{A}_1 & \text{A}_2 & \dots & \text{A}_k & & \\
& p_1 & p_2 & \dots & p_k & & n & & \text{A}_1 \text{ A}_2 \dots \text{ A}_k \\
& f_1 & f_2 & \dots & f_k & \left(\sum_{i=1}^k f_i = n \right) & & & \\
\\
H_0 & & H_1 & & \alpha & & & & \\
H_0 & & H_1 & & & & & & \\
H_0 & & & & n p_i & & & & \\
& \hline & & \left| \begin{array}{cccc|c} \text{A}_1 & \text{A}_2 & \dots & \text{A}_k & \\ f_1 & f_2 & \dots & f_k & n \\ n p_1 & n p_2 & \dots & n p_k & n \end{array} \right| & & & \\
& \text{A}_i & X_i & \sum_{i=1}^k \frac{(X_i - n p_i)^2}{n p_i} & i = 1, 2, \dots, k & & n p_i \geq 5 & & \\
df = k-1 & \chi^2 & \chi^2 & \chi^2_* = \sum_{i=1}^k \frac{(f_i - n p_i)^2}{n p_i} & & & & & \\
\chi^2_* \geq \chi^2_{(k-1)}(\alpha) & H_0 & \chi^2_* < \chi^2_{(k-1)}(\alpha) & H_0 & & & & &
\end{array}$$

例題 1

9:3:3:1



2 A B A₁ A A B B₂ B

×

	1	2		
1	11	12	1	1*
2	21	22	2	2*
:	:	:	:	:
	*1	*2	*	*

A B
0 1 α

0 A B A B
1 A B A B

$$\chi^2 = \sum_{=1}^{\infty} \sum_{=1}^{\infty} \frac{\left(\frac{-\text{X}}{\text{X}} \right)^2}{\text{X}}$$

$$\frac{-\text{X}}{\text{X}} \geq 5 \quad = (-1)(-1) \quad \chi^2 \quad \chi^2_*$$

$$\chi^2_* = \sum_{=1}^{\infty} \sum_{=1}^{\infty} \frac{\left(\frac{-\text{X}}{\text{X}} \right)^2}{\text{X}} \geq \chi^2_{(-1)(-1)}(\alpha) \quad 0 \quad \chi^2_* < \chi^2_{(-1)(-1)}(\alpha) \quad 0$$

100

	45	15	60
	20	20	40
	65	35	100

5%