

T.12

$$H_0: \vartheta_1 = \frac{1}{3} \quad \vartheta_2 = \frac{1}{6} \quad \vartheta_3 = \frac{1}{4} \quad \vartheta_4 = \frac{1}{4}$$

$$H_1: \vartheta_i = \frac{1}{4}, i = \overline{1,4}$$

$$n=2$$

$H_0:$

$H_1:$

$P:$	1	2	3	4		$P:$	1	2	3	4
1	$\frac{1}{9}$	$\frac{1}{18}$	$\frac{1}{12}$	$\frac{1}{12}$	$\vdots$	1	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
2	$\frac{1}{18}$	$\frac{1}{36}$	$\frac{1}{24}$	$\frac{1}{24}$	$\vdots$	2	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
3	$\frac{1}{12}$	$\frac{1}{24}$	$\frac{1}{16}$	$\frac{1}{16}$	$\vdots$	3	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
4	$\frac{1}{12}$	$\frac{1}{24}$	$\frac{1}{16}$	$\frac{1}{16}$	$\vdots$	4	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$

$$G: P \geq C$$

$$P(P \geq C/H_0) \leq \alpha = 0,2$$

$$\frac{1}{36} + \frac{1}{24} + \frac{2}{18} \approx 0,194 < \alpha$$

$$\approx 0,3 > \alpha$$

$$\Rightarrow C = 1,5$$

$$\text{For } H_1 \quad \alpha_1 = \frac{7}{36} \quad ; \quad \alpha_2 = \frac{11}{16}$$

$$W = P(P \geq 1,5/H_1) = \frac{5}{16}$$