12,

	1	2	3	4
$H_0: P_i$	$\frac{6}{24}$	$\frac{6}{24}$	$\frac{4}{24}$	$\frac{8}{24}$
$H_1: P_i$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\alpha = 0.2$

$n = 2$

H_0:

P	1,2	3	4
1,2	$\frac{1}{4}$	$\frac{1}{12}$	$\frac{1}{6}$
3	$\frac{1}{12}$	$\frac{1}{36}$	$\frac{1}{18}$
4	$\frac{1}{6}$	$\frac{1}{18}$	$\frac{1}{9}$

H_1:

P	1,2	3	4
1,2	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$
3	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{16}$
4	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{16}$

$l = \frac{L_1}{L_0}$	1,2	3	4
1,2	1	$\frac{3}{2}$	$\frac{3}{4}$
3	$\frac{3}{2}$	$\frac{9}{4}$	$\frac{9}{8}$
4	$\frac{3}{4}$	$\frac{9}{8}$	$\frac{9}{16}$

G

$G: l \geq C \quad P(l \geq C | H_0) \leq 0.2$

$C = \frac{3}{2}$

$\alpha_1 = \frac{1}{36} + 2 \cdot \frac{1}{12} = \frac{7}{36}$

$\alpha_2 = P(l < \frac{3}{2} | H_1) = \frac{1}{4} + 2 \cdot \frac{1}{8} + 3 \cdot \frac{1}{16} = \frac{11}{16}$

$W = 1 - \alpha_2 = \frac{5}{16}$