N 11.

$\alpha = 0{,}2.$

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

$$f \sim \frac{1}{4}\delta(x-1) + \frac{1}{4}\delta(x-2) + \Theta\delta(x-3) + \left(\frac{1}{2} - \Theta\right)\delta(x-4)$$

$H_0: \Theta = \frac{1}{6}$

$H_1: \Theta = \frac{1}{4}$

$$l = \frac{L_1}{L_0} = \frac{\left(\frac{1}{4}\delta(x_1-1) + \frac{1}{4}\delta(x_1-2) + \dots\right)\cdot\left(\frac{1}{4}\delta(x_2-1) + \frac{1}{4}\delta(x_2-2) + \dots\right)}{\left(\frac{1}{4}\delta(x_1-1) + \dots\right)\left(\frac{1}{4}\delta(x_2-1) + \dots\right)}$$

$$\frac{}{1}$$

l:

	1	2	3	4
1	1	1	$\frac{3}{2}$	$\frac{3}{4}$
2	1	1	$\frac{3}{2}$	$\frac{3}{4}$
3	$\frac{3}{2}$	$\frac{3}{2}$	$\frac{9}{4}$	$\frac{9}{8}$
4	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{9}{8}$	$\frac{9}{16}$

$$P(l \geq C \mid H_0) = \alpha$$

H_0:

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

H_1:

	1	2	3	4
1	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
2	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
3	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$
4	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$

G: $(1;3), (2;3), (3;3), (3;2), (3;1)$.

$\alpha_1 = \frac{1}{36} + \frac{4}{24} = 0,19$

$\alpha_2 = \frac{11}{16} = 0,69$

$W = 1 - \alpha_2 = 0,31.$