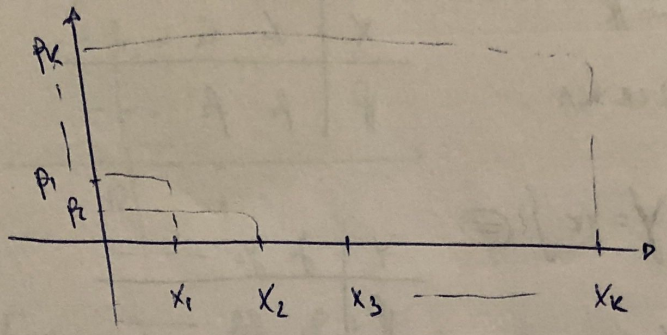
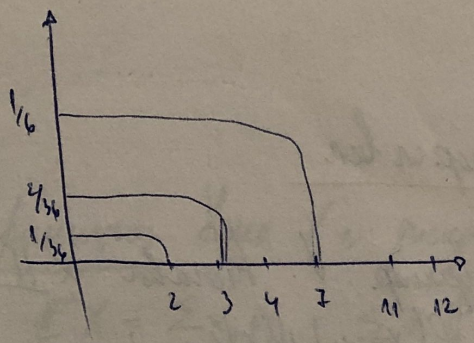
Хистограма



⊕ Хвърляме 2 зара. X, Y са числата от 1 до 6

$Z = X + Y$

Z	2	3	7	12
$\mathbb{P}$	$\frac{1}{36}$	$\frac{2}{36}$	$\frac{6}{36}$	$\frac{1}{36}$



Смяна на променливите на дискретна сл. вел.

X, $g: \mathbb{R} \to \mathbb{R}$; $Y = g(X)$ сл. вел.?

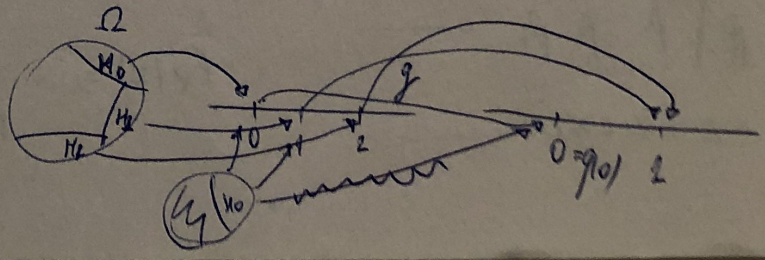
$X = \sum_j x_j 1_{H_j}$, тогава $Y = \sum_j g(x_j) 1_{H_j}$, 1_{H_j} е сл. вел. и ако положим

$y_j = g(x_j)$, тогава $Y = \sum_j y_j 1_{H_j}$ $g(x_i) = g(x_k)$ $i \neq k$ можем да обединим $\tilde{H} = H_i \cup H_k$

Y	y_1	y_2	$\dots$	y_j	$\dots$	y_k
$\mathbb{P}$	p_1	p_2	$\dots$	p_j	$\dots$	p_k

⊕ CPU $X = \sum_{j=0}^{\infty} j 1_{\{H_j\}}$ където $H_j = \{$CPU работи точно j дни$\}$

$Y = g(X)$, където $g(n) = \begin{cases} 0 & n = 0 \\ 1 & n \geq 1 \end{cases}$

X	0	1	2	$\dots$
$\mathbb{P}$	p_0	p_1	p_2	$\dots$

$Y = g(X)$	0	1
$\mathbb{P}$	p_0	$p_1 + p_2 + \dots$