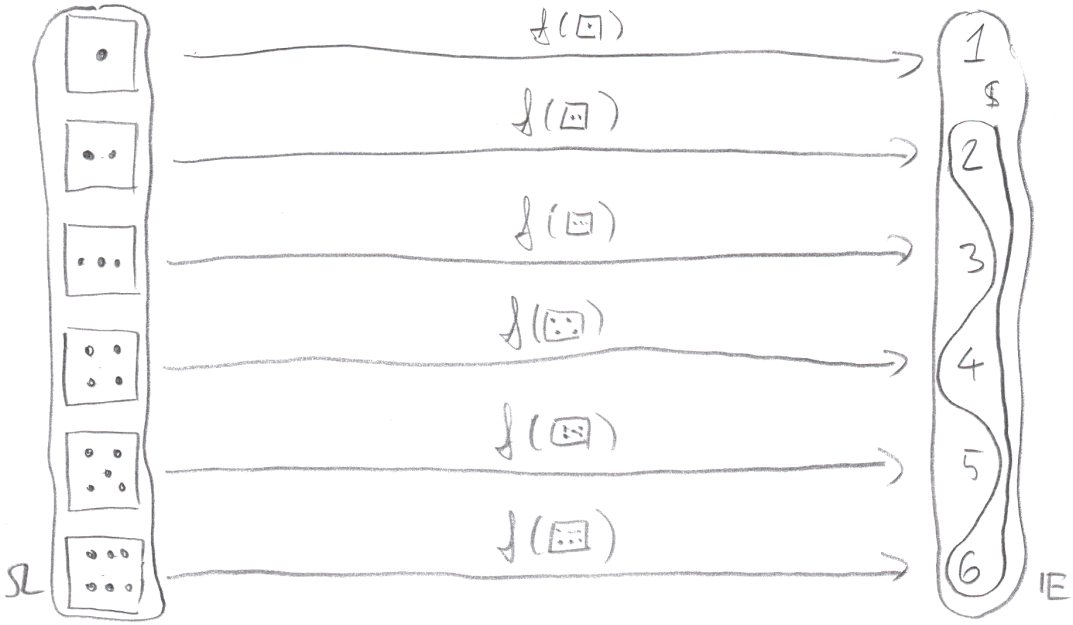
zmienne losowe ...

formalnie: $f : \Omega \to \mathbb{R}$ $(\mathbb{E})$

prawdopodobieństwo: $P(y \in S) = P(\{\omega \in \Omega : f(\omega) \in S\})$

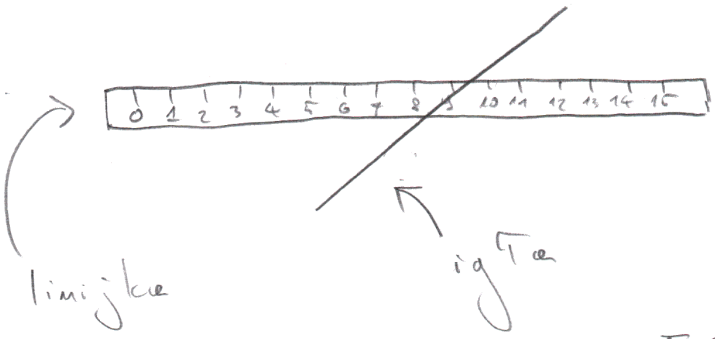


$f(\text{⚃}) = 4 \in S$

$P(y \in \{2,4,6\}) - P(\{\text{⚁}, \text{⚃}, \text{⚅}\})$

$f(\text{⚁}) = 2 \in S$

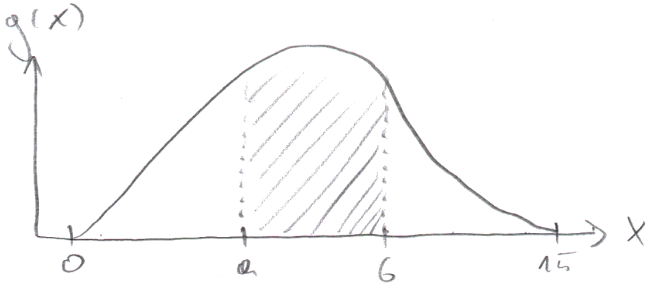
$f(\text{⚅}) = 6 \in S$



$P(y \in \{0.5\}) = ?$

FGP

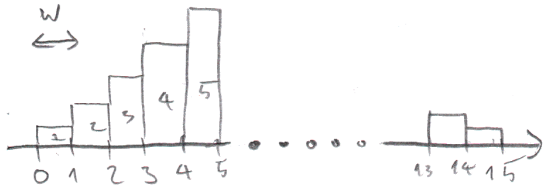
$$P(a \le y < b) = \int_a^b g(x)\,dx$$



$$\int_a^6 g(x)\,dx$$

$$\int_0^{15} g(x)\,dx = 1$$ ← normalizacja

count(i) / N



$$P((i-1)\cdot w \le y < i\cdot w) = \int_{(i-1)w}^{w} g(u)\,du \approx$$

$$\approx g\left(\frac{1}{2}\left((i-1)w + iw\right)\right) \cdot w$$

$$\frac{\text{count}(i)}{N \cdot w}$$