Predmet: Pravděpodobnost a statistika 1
Ukol: 3.
Verze: 1.
Autor: David Napravnik

12ti stenna kostka

$\mathbb{E}(X)$

$$\mathbb{E}(X) = \frac{1*1+2*2+4*4+5*5}{12} = \frac{23}{6}$$

$var(X)$

$$var(X) = \frac{1}{N}\sum_{i=1}^{N}(X_i - \mathbb{E}(X))^2$$

$$var(X) = \frac{1}{12}\sum_{i=1}^{12}(X_i - \frac{23}{6})^2$$

$$var(X) = \frac{1}{12}((1-\frac{23}{6})^2 + 2(2-\frac{23}{6})^2 + 4(4-\frac{23}{6})^2 + 5(5-\frac{23}{6})^2)$$

$$var(X) = \frac{65}{36}$$

smerodatna odchylka

$$\sigma = \sqrt{var(X)}$$

$$\sigma = \sqrt{\frac{65}{36}} \sim 1.344$$