

Заг. 1 репен и 1 амзар.

z = буну буну репен

y = уни буну буну

1) ыбн репен на (z, y)

$z \backslash y$	0	1	2
0	$\frac{1}{6} \cdot \frac{1}{6}$		
1		$\frac{1}{6} \cdot \frac{1}{6}$	
2			$\frac{1}{6} \cdot \frac{1}{6}$
3			$\frac{1}{6} \cdot \frac{1}{6}$

2) $P(z=0 | y=1) = 1$

$$P(z=1, y=1) + P(z=1, y=2)$$

$$= 1 - P(z=1, y=0)$$

$$P(z=0, y=0) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6}$$

$$P(z=0, y=1) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6} + 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6}$$

$$P(z=0, y=2) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6} + 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6}$$

$$P(z=0, y=3) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6}$$

$$P(z=1, y=0) = 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6}$$

$$P(z=1, y=1) = 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6} + 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6}$$

$$P(z=1, y=2) = 2 \cdot \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6}$$

$$P(z=1, y=3) = 0$$

$$P(z=2, y=0) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{5}{6}$$

$$P(z=2, y=1) = \frac{1}{6} \cdot \frac{1}{6} \cdot \frac{1}{6}$$

Заг. Математика

$$* P((z, y) = (k, m)) = c \cdot \frac{\lambda^k \mu^m}{k! m!}$$

Конверсия c

Функция

$$X \sim P(\lambda) \xleftrightarrow{\text{def}} P(X=k) = \frac{\lambda^k}{k!} \cdot e^{-\lambda}$$

$$c \cdot \sum_{k, m} \frac{\lambda^k \mu^m}{k! m!} = 1$$

$$\sum_{k=0}^{\infty} \frac{\lambda^k}{k!} \cdot \sum_{m=0}^{\infty} \frac{\mu^m}{m!} = e^{\lambda} \cdot e^{\mu} \Rightarrow c \cdot e^{\lambda + \mu} = 1 \Rightarrow c = e^{-\lambda - \mu}$$

$$e^{-\lambda} \frac{\lambda^k}{k!} e^{-\mu} \frac{\mu^m}{m!} = P((P(\lambda) = k, P(\mu) = m)), \text{ ано са кежавану}$$