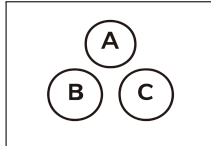


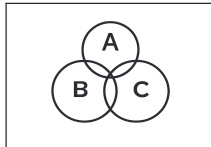
21

Discrete Distribution Poisson Variable

G

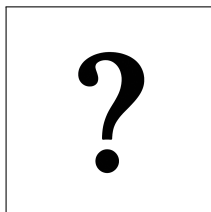


$$\lambda = 1$$



$$P(X = k) = e^{-\lambda} \frac{\lambda^k}{k!}$$

$$P(X = 0) = e^{-1} \frac{1^0}{0!} = e^{-1} \approx \boxed{0.37}$$



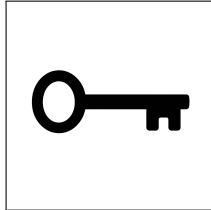
$$\lambda = 12$$

$$P(X < 9) = ?$$

21

Discrete Distribution Poisson Variable

G



$$\lambda = 12$$

$$P(X < 9) = \sum_{k=0}^8 e^{-12} \frac{12^k}{k!} \approx \boxed{0.1550}$$