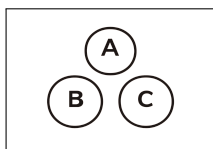


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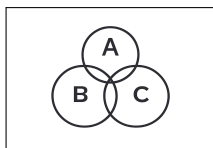
Discrete Distribution Bernoulli Trials



$$n = 2$$

$$p = 0.50$$

$$k = 1$$

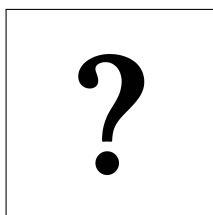


$$P(X = k) = \binom{n}{k} (p)^k (1 - p)^{n-k}$$

$$P(X = 1) = \binom{2}{1} (0.50)^1 (0.50)^1$$

$$P(X = 1) = 2 \times 0.50 \times 0.50$$

$$P(X = 1) = \boxed{0.50}$$



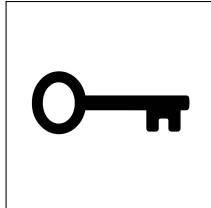
$$n = 3$$

$$p = 0.70$$

$$P(X \geq 2) = ?$$

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Discrete Distribution Bernoulli Trials



$$\begin{aligned}n &= 3 \\p &= 0.70 \\P(X \geq 2) &= ?\end{aligned}$$

$$P(X \geq 2) = P(X = 2) + P(X = 3)$$

$$P(X = 2) = \binom{3}{2}(0.70)^2(0.30)^1 = 3 \times 0.49 \times 0.30 = 0.441$$

$$P(X = 3) = \binom{3}{3}(0.70)^3(0.30)^0 = 1 \times 0.343 \times 1 = 0.343$$

$$P(X \geq 2) = 0.441 + 0.343 = \boxed{0.784}$$