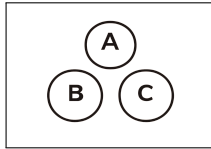


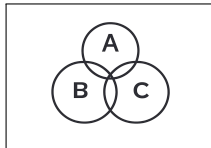
8

Discrete Distribution
Probability

K



$$S = \{B, B, R, R, R\}$$



$$\mathbb{P}(S, BB) = \mathbb{P}(S, B) \times \mathbb{P}(S, B) = 0.40 \times 0.25 = 0.10$$

$$\mathbb{P}(S, BR) = \mathbb{P}(S, B) \times \mathbb{P}(S, R) = 0.40 \times 0.75 = 0.30$$

$$\mathbb{P}(S, RB) = \mathbb{P}(S, R) \times \mathbb{P}(S, B) = 0.60 \times 0.50 = 0.30$$

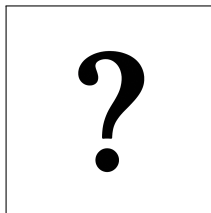
$$\mathbb{P}(S, RR) = \mathbb{P}(S, R) \times \mathbb{P}(S, R) = 0.60 \times 0.50 = 0.30$$

$$\mathbb{P}(S, BB) = \mathbb{P}(S, B) \times \mathbb{P}(S, B) = 0.40 \times 0.40 = 0.16$$

$$\mathbb{P}(S, BR) = \mathbb{P}(S, B) \times \mathbb{P}(S, R) = 0.40 \times 0.60 = 0.24$$

$$\mathbb{P}(S, RB) = \mathbb{P}(S, R) \times \mathbb{P}(S, B) = 0.60 \times 0.40 = 0.24$$

$$\mathbb{P}(S, RR) = \mathbb{P}(S, R) \times \mathbb{P}(S, R) = 0.60 \times 0.60 = 0.36$$



$$S = \{1, 1, 2, 2, 2, 3, 3\}$$

$$P(\mathbb{P}(S, 11)) = ?$$

8

Discrete Distribution
Probability

K



$$S = \{1, 1, 2, 2, 2, 3, 3\}$$

$$P(\textcircled{\#}(S, 11)) = ?$$

$$\textcircled{\#}(S, 11) = \binom{2}{2} = 1$$

$$\textcircled{\#}(S, 2) = \binom{7}{2} = \frac{7 \cdot 6}{2} = 21$$

$$P(\textcircled{\#}(S, 11)) = \frac{\textcircled{\#}(S, 11)}{\textcircled{\#}(S, 2)} = \frac{1}{21} \approx 0.05$$