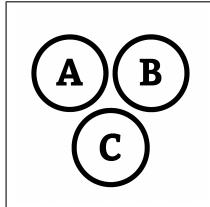


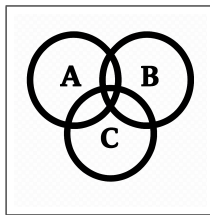
P

Probability

P



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



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

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

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

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

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

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

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

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



$$S = \{A, A, A, A, A, A, H, H, H, H, L, L\}$$

$$P(P(S, AA)) + P(P(S, HH)) + P(P(S, LL)) = ?$$

P

Probability

P



$S = \{A, A, A, A, A, A, H, H, H, H, L, L\}$

$$\mathfrak{C}(S, 6) = \binom{12}{6} = 924$$

$$\mathfrak{C}(S, AA) = \binom{6}{2} = 15$$

$$\mathfrak{C}(S, HH) = \binom{4}{2} = 6$$

$$\mathfrak{C}(S, LL) = \binom{2}{2} = 1$$

$$P(\mathfrak{C}(S, AA)) + P(\mathfrak{C}(S, HH)) + P(\mathfrak{C}(S, LL)) =$$

$$(\mathfrak{C}(S, AA) + \mathfrak{C}(S, HH) + \mathfrak{C}(S, LL)) / \mathfrak{C}(S, 6) = (15 \times 6 \times 1) / 924 = 15/154 \approx 0.10$$