



$$P(A \cap C) = P(A) \times P_A(C)$$

$$P(A \cap \bar{C}) = P(A) \times P_A(\bar{C})$$

$$P(B \cap C) = P(B) \times P_B(C)$$

$$P(B \cap \bar{C}) = P(B) \times P_B(\bar{C})$$