

④ The probability that at least one of the two events A & B occurs is 0.6. If A & B occur simultaneously with probability 0.3. evaluate $P(\bar{A}) + P(\bar{B})$.

$$- P(A \cup B) = 0.6 \quad P(A \cap B) = 0.3$$

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$$P(A) + P(B) = P(A \cup B) + P(A \cap B) = 0.6 + 0.3 = 0.9$$

$$P(\bar{A}) + P(\bar{B}) = 1 - P(A) + 1 - P(B) = 2 - (P(A) + P(B)) \\ = 2 - 0.9 = 1.1$$