

PROBABILITY AND STATISTICS

CHAPTER 1: PROBABILITY

1.1.1. The probability of an event occurring is a number between 0 and 1, inclusive. It is denoted by $P(A)$.

1.1.2. The probability of an event not occurring is denoted by $P(\bar{A})$.

1.1.3. The probability of two events occurring together is denoted by $P(A \cap B)$.

1.1.4. The probability of either event occurring is denoted by $P(A \cup B)$.

1.1.5. The probability of event A occurring given that event B has occurred is denoted by $P(A|B)$.

1.1.6. The probability of event B occurring given that event A has occurred is denoted by $P(B|A)$.

1.1.7. The probability of event A occurring and event B not occurring is denoted by $P(A \cap \bar{B})$.

1.1.8. The probability of event B occurring and event A not occurring is denoted by $P(\bar{A} \cap B)$.

1.1.9. The probability of event A occurring or event B not occurring is denoted by $P(A \cup \bar{B})$.

1.1.10. The probability of event B occurring or event A not occurring is denoted by $P(\bar{A} \cup B)$.

1.1.11. The probability of event A occurring and event B occurring is denoted by $P(A \cap B)$.

1.1.12. The probability of event A occurring and event B not occurring is denoted by $P(A \cap \bar{B})$.

1.1.13. The probability of event B occurring and event A not occurring is denoted by $P(\bar{A} \cap B)$.

1.1.14. The probability of event A occurring or event B occurring is denoted by $P(A \cup B)$.

1.1.15. The probability of event A occurring and event B occurring is denoted by $P(A \cap B)$.