

Random Experiment :

An experiment whose outcome cannot be predicted with certainty is called a random experiment.

Sample Space :

The set of all possible outcomes of a random experiment is called the sample space for that experiment.

Event :

Any subset of a sample space is known as event.

Equally likely Events :

Two events are said to be equally likely when chance of occurrence of one event is equal to chance of occurrence of other.

Exhaustive Events : -

Events are said to be exhaustive if nothing else can occur beyond them. Union of exhaustive events is equal to sample space.

Mutually exclusive events :

Two events are said to be mutually exclusive if they cannot occur together. i.e. their intersection is null set.

$$P(E) = n(E)/n$$

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

Rule of Complementary Events $P(A') + P(A) = 1$

Disjoint Events $P(A \cap B) = 0$