

9th Standard-Maths

Probability

1. Some Basic Definitions

(i) **Trial:** A single performance of a random experiment is known as a trial.

(ii) **Sample space:** The set consisting of all possible outcomes of a random experiment is known as sample space.

(lii) **Event:** A subset of the sample space of a random experiment is called an event.

2. **Probability:** Let n be the total number of trials and m be a favourable event.

The empirical probability $P(E)$ of an event E happening, is given by

$$P(E) = \frac{\text{Number of trials favourable to an event}}{\text{Total number of trials}} = \frac{m}{n}$$

Note:

- The probability of any certain event is 1.
- The probability of an impossible event is 0.
- $0 \leq P(E) \leq 1$.