Chapter 1 5

Probability

- **Probability:** Probability is a quantitative measure of certainty.
- **Experiment:** A job which produces some outcomes.
- **Trial:** Performing an experiment.
- **Event:** The group of outcomes, denoted by capital letter of English alphabets like A, B, E etc.
- The empirical (or experimental) probability P(E) of an event E is given by

$$P(E) = \frac{\text{Number of trials in which E has happend}}{\text{Total no. of trial}}$$

- The probability of an event lies between 0 and 1 (0 and 1 are included)
- **Impossible event:** Event which never happen.
- **Certain event:** Event which definitely happen.
- The probability of sure event is 1.
- The probability of an impossible event is 0.
- The probability of an event E is a number P(E) such that $0 \le P(E) \le 1$.