

CHAPTER 15

Probability

Example:

If a card is drawn from a well shuffled pack of 52 cards.
Find the probability of getting a red card.

Sol.

Let 'S' be the sample space that, a card is drawn from a well shuffled pack of 52 cards $\Rightarrow$

$$n(S) = 52$$

Let 'E' be the event of getting a red card $\Rightarrow n(E) = 13 + 13 = 26$

$$\therefore P(E) = \frac{n(E)}{n(S)} \Rightarrow P(E) = \frac{26}{52} = \frac{1}{2}$$

Example:

A card is drawn from a well shuffled pack of 52 cards.
Find the probability that the card drawn is neither a red card nor a King.

Sol.

Let 'S' be the sample space that a card is drawn from a well shuffled pack of 52 cards.

$$\Rightarrow n(S) = 52$$

Let 'E' be the event of getting that the card drawn is neither a red card nor a king.

$\Rightarrow n(E) = \text{Total cards} - \text{No of Red cards} - \text{Black King cards}$

$$\Rightarrow n(E) = 52 - 24 - 2 = 52 - 26 = 26$$

$$\therefore P(E) = \frac{n(E)}{n(S)} \Rightarrow P(E) = \frac{26}{52}$$

