

CHAPTER 15

Probability

Example:

What is the probability that a leap year, selected at random will contain 53 Sundays?

Sol.

Number of days in a leap year = 366 days = 52 weeks
+ 2 days

Let 'S' be the sample, that the remaining '2' days. They are,

= {(Sun, Mon), (Mon, Tue), (Tue, Wed), (Wed, Thu),
(Thu, Fri), (Fri, Sat), (Sat, Sun)}

$$\Rightarrow n(S) = 7$$

Let 'E' be the event of getting that,

Sunday = {(Sun, Mon), (Sat, Sun)} $\Rightarrow n(E) = 2$

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

$$\Rightarrow P(E) = \frac{2}{7}$$

