

CHAPTER 15

Probability

Example:

Two friends were born in the year 2000. What is the probability that they have the same birthday?

Sol.

Total number of days in the year 2000 (Leap year) = 366 days

Let 'S' be the sample space that, two friends were born in year 2000 $\Rightarrow n(S) = 366 \times 366$

Let 'E' be the event of getting that, two friends have the same birthday $\Rightarrow n(E) = 366$

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

$$\Rightarrow P(E) = \frac{366}{366 \times 366} = \frac{1}{366}$$