

Advanced_Grade-9_Probability

Empirical Probability of Events

1. In a one-day cricket Match, Sachin played 40 balls and hit 12 sixes and Saurav played 30 balls and hit 9 fours. Find the probability that Sachin will hit a six in the next ball and also find the probability that Saurav will not hit a four in the next ball.
2. A coin is tossed for a certain number of times. If the probability of getting a head is 0.4 and head appears for 24 times, find the number of times, the coin was tossed. Hence, find probability of getting a tail and verify that $P(H) + P(T) = 1$.
3. A school organised an adventure camp for students to Kanatal. The following table shows the participation of students in different types of adventure activities :
Type I → trekking
Type II → trekking and mountain climbing
Type III → trekking, mountain climbing
Type IV → trekking, repelling and rafting.

Type of activities	Number of students
Type I	75
Type II	62
Type III	55
Type IV	36
All	22

Find the probability that the student chosen at random participated in :

- (i) Type III activities.
- (ii) All the activities.
- (iii) Type I activity.
- (iv) Type II and Type IV activities

4. The marks obtained by 30 students in a competitive exam are given below :

Marks	70	58	61	52	65	75	68
No. of Students	3	5	4	7	6	2	3

One student is chosen at random. Find the probability :

- (i) That the student scored more than 65 marks.
- (ii) That the marks scored by the students is an odd number.