# Anita's Coaching Classes

Q1 - To know the opinion of students about mathematics, a survey of 100 students was conducted. The data is recorded in the following table:

| Opinion: | Like | Dislike |
|---|---|---|
| Number of Students: | 70 | 30 |

Find the probability that a student chosen at random
1. likes mathematics,
2. dislikes mathematics. (3 Marks)

Q2 - 8 bags of wheat flour, each marked 10 kg, actually contained the following weights of flour(in kg)   10.01, 9.97, 10.03, 9.96, 10.04, 10.06, 10.02, 9.98
Find the probability that any of these bags chosen at random contain less than 10 kg of wheat.
(3 Marks)

Q3 -  A drawer contains 8 red socks, 3 white socks and 5 blue socks. Without looking, Mayank draws out a pair of socks. Find the probability that the pair of socks is white.          (2 Marks)

Q4 - Two coins are tossed simultaneously 100 times and we get the following outcomes:
(i) One head = 20   (ii) Two heads = 50. Find the probability that there is no head.      (2 Marks)

Q5 - Two coins are tossed simultaneously 100 times and we get the following outcomes:
(i) No head = 30 (ii) Two heads = 50. Find the probability that there is only one head.   (2 Marks)

Q6 - A teacher wanted to analyse the performance of two sections of students in a mathematics test of 100 marks. Looking at their performances, she found that a few students got under 20 marks and a few got 70 marks or above. So she decided to group them into intervals of varying sizes as follows: 0 – 20, 20 – 30… 60 – 70, 70 – 100. Then she formed the following table:

| Marks | Number of student |
|---|---|
| 0 – 20 | 7 |
| 20 – 30 | 10 |
| 30 – 40 | 10 |
| 40 – 50 | 20 |
| 50 – 60 | 20 |
| 60 – 70 | 15 |
| 70 – above | 8 |
| Total | 90 |

(i) Find the probability that a student obtained less than 20 % in the mathematics test.
(ii) Find the probability that a student obtained marks 60 or above. (4 Marks)

Q7 - To know the opinion of the students about the subject Maths, a survey of 200 students was conducted. The data is recorded in the following table.

| Opinion | Number of students |
|---|---|
| like | 135 |
| dislike | 65 |

Find the probability that a student chosen at random
(i) likes Maths, (ii) does not like it. (4 Marks)