

**ST. THOMAS SCHOOL**  
**Worksheet, CLASS-IX (MATHEMATICS)**  
**TOPIC-PROBABILITY (NOVEMBER)**  
**DATE OF SUBMISSION- 18-11-2019**

1. The probability of an event lies between \_\_\_\_\_ and \_\_\_\_\_.
2. If  $p$  is the probability of the occurrence of an event, then  $q$ , the probability of not occurrence is \_\_\_\_\_.
3. What is the sum of probabilities of all events of a trial?
4. In a single throw of two dice, what is the probability of getting a sum of 10?
5. When two coins are tossed simultaneously, what is the probability of getting at most one head?
6. A card is drawn from a well shuffled deck of playing cards. Find the probability that it is i) a red queen ii) a black card iii) a jack iv) neither a red card nor a queen
7. In a group of 50 persons, 12 persons are honest whereas 15 persons are hardworking and the rest are extremely kind hearted. A person is selected at random. Find the probability that the person selected is very kind hearted.
8. Three coins are tossed simultaneously 300 times with the following frequencies of different outcomes:

Outcomes	3 heads	2 heads	1 head	No head
Frequency	41	95	105	59

Find the probability of getting

i) exactly two heads ii) at least two heads iii) at most 2 heads

9. Cards marked with number 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from this box. Find the probability that the number on the card is:
  - a) a number which is a perfect square
  - b) a prime number less than 20.
10. A recent survey found that the ages of workers in a factory is distributed as follows:

Age (in years)	No. of workers
20 – 29	38
30 – 39	27
40 – 49	86
50 – 59	46
60 and above	3

If a person is selected at random, find the probability that the person is

- i) 40 years or more
- ii) Under 40 years
- iii) Having age from 30 to 39 years
- iv) Under 60 but over 39 years