

1. A number is chosen from 1 to 20. Find the probability that the number chosen is :
- (i) a prime number (ii) a composite number  
 (iii) a square number (iv) an odd number  
 (v) an even number (vi) number between 7 and 14
2. A bag contains 9 red and 6 blue balls. Find the probability that a ball drawn from a bag at random is  
 (i) Red ball (ii) blue ball
3. In a sample of 500 items, 120 are found to be defective. Find the probability that the item selected at random is  
 (i) Defective (ii) non-defective
4. In a school of 1800 students, there are 875 girls. Find the probability that a student chosen at random is  
 (i) a boy (ii) a girl
5. In a cricket match, a batsman hit a boundary 12 times out of 45 balls he plays. Find the probability that he did not hit a boundary.
6. A coin is tossed 700 times and we get head : 385 times; tail : 315 times. When a coin is tossed at random, what is the probability of getting: (i) a head? (ii) a tail?
7. Two coins are tossed 600 times and we get two heads: 138 times, one head : 192 times ; no head : 270 times. When two coins are tossed at random, what is the probability of getting?  
 (i) 2 heads? (ii) 1 head? (iii) no head?
8. Three coins are tossed 250 times and we get: 3 heads : 46 times; 2 heads : 56 times; 1 head : 70 times; 0 head : 78 times. When three coins are tossed at random, what is the probability of getting :  
 (i) 3 heads ? (ii) 2 heads? (iii) at least 2 heads? (iv) at most 2 heads?
9. A die is thrown 300 times and the outcomes are noted as given below :
- |             |    |    |    |    |    |    |
|-------------|----|----|----|----|----|----|
| Frequencies | 58 | 75 | 52 | 39 | 42 | 34 |
| Outcomes    | 1  | 2  | 3  | 4  | 5  | 6  |
- When a die is thrown at random, what is the probability of getting a:  
 (i) 4 (ii) 6 (iii) number less than 3 (iv) number which is prime
10. In a survey of 350 ladies, it was found that 235 like coffee, while rest of them dislike it. Find the probability that a lady chosen at random:  
 (i) likes coffee (ii) dislikes coffee.
11. On one page of a telephone directory, there are 200 phone numbers. The frequency distribution of their units digit is given below :
- |             |    |    |    |    |    |    |    |    |    |    |
|-------------|----|----|----|----|----|----|----|----|----|----|
| Frequency   | 21 | 20 | 21 | 21 | 22 | 25 | 22 | 17 | 15 | 16 |
| Units digit | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
- One of the numbers is chosen at random from the page. What is the probability that the units digit of the chosen number is  
 (i) 5 (ii) 8 (iii) an even number (iv) an odd number