

Q1. Find the probability of the following events, if three coins are tossed together:

- a. Getting exactly two tails : _____
- b. Getting all heads or all tails : _____
- c. Getting no tails : _____

Q2. If a die is rolled, find the probability of:

- a. Getting an odd number which is a factor of 4 : _____
- b. Getting a number less than 5 : _____
- c. Getting a multiple of 3 : _____

Q3. If two dice are rolled together, fill in the blanks with the correct probability of the following events:

- a. Sum of two numbers is less than 3 : _____
- b. Sum of two numbers is 11 : _____
- c. Both numbers are even : _____

Q4. A box has red, blue, green and yellow balls of same size in equal number. If a ball is taken out from the box at random, find whether the following statements are True or False:

- a. The probability of taking out an orange ball is zero. _____
- b. The probability of taking out a blue ball is twice the probability of taking out a red ball. _____
- c. The probability of taking out a white ball is 1. _____
- d. The probability of taking out a ball of any colour but not yellow is $\frac{3}{4}$. _____

Q5. In a box, there are cards marked with first 10 multiples of 5. A card is selected at random from the box. Fill in the blanks with the correct probability:

- The probability of getting a multiple of 10 is _____.
- The probability of getting an even number is _____.
- The probability of getting a number more than 10 is _____.
- The probability of getting a number less than 5 is _____.

Q6. A bag contains 12 grey marbles, 10 pink marbles and 8 green marbles of same size. A marble is taken out of the bag at random. Find the probability that the marble taken out is of:

- red colour : _____
- grey or pink colour : _____
- any colour but not green or pink : _____

Q7. Paper chits bearing names of the following 10 cities are put in a box. The names of the cities are as follows:

Delhi, Cherrapunji, Bhopal, Darjeeling, Kanpur, Bengaluru, Chennai, Jodhpur, Jaipur, Cochin

If a chit is taken out at random, find the probability of getting a chit bearing a city name:

- starting with the letter 'A', 'B' or 'C' : _____
- containing not more than two vowels : _____
- ending with the letter 'R' : _____

Q8. Two coins are tossed simultaneously 200 times. The distribution of various outcomes is listed below:

One Tail	Two Tail
60	80

Find the probability of each of the following events and verify that the sum of the probabilities is 1.

- Probability of getting one head : _____
- Probability of getting two heads : _____
- Probability of getting No head : _____

$$\text{Sum of the probabilities} = \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

Q9. A spinner wheel of fortune is divided into four equal parts having colours red, blue, green and yellow. When the wheel is rotated, the pointer moves and stops at some coloured area. Find the probability that the pointer stops at:

- a. not a yellow coloured sector : _____
- b. a blue or green coloured sector : _____
- c. any sector but not green or white sector: _____

Q10. Find the probability of the following events:

- a. Sun setting in the West : _____
- b. Getting a number more than 6 when a die is rolled : _____
- c. Getting a red or black coloured card from a deck of playing cards : _____
- d. A year having 30 days in January : _____

Answers

1. a. $\frac{3}{8}$; b. $\frac{1}{4}$; c. $\frac{1}{8}$

2. a. $\frac{1}{6}$; b. $\frac{2}{3}$; c. $\frac{1}{3}$

3. a. $\frac{1}{36}$; b. $\frac{1}{18}$; c. $\frac{1}{4}$

4. a. True; b. False; c. False; d. True

5. a. $\frac{1}{2}$; b. $\frac{1}{2}$; c. $\frac{4}{5}$; d. 0

6. a. 0; b. $\frac{11}{15}$; c. $\frac{2}{5}$

7. a. $\frac{1}{2}$; b. $\frac{1}{2}$; c. $\frac{2}{5}$

8. a. $\frac{3}{10}$; b. $\frac{3}{10}$; c. $\frac{2}{5}$

Sum of the probabilities = $\frac{3}{10} + \frac{3}{10} + \frac{2}{5} = 1$

9. a. $\frac{3}{4}$; b. $\frac{1}{2}$; c. $\frac{3}{4}$

10. a. 1; b. 0; c. 1; d. 0