EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Probability

Grade : ICSE Grade X



1. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a face card ?

   (i) $\frac{1}{4}$ (ii) $\frac{1}{52}$ (iii) $\frac{1}{26}$ (iv) $\frac{1}{13}$ (v) $\frac{3}{13}$

2. Three unbiased coins are tossed simultaneously. Find the probability of getting at least two heads.

   (i) $\frac{5}{6}$ (ii) $\frac{2}{3}$ (iii) $\frac{1}{2}$ (iv) $\frac{4}{5}$ (v) $\frac{3}{4}$

3. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a queen of diamonds?

   (i) $\frac{1}{13}$ (ii) $\frac{1}{4}$ (iii) $\frac{1}{26}$ (iv) $\frac{3}{13}$ (v) $\frac{1}{52}$

4. A lot of 30 bulbs contain 10 defective ones. One bulb is drawn at random from the lot. What is the probability that this bulb is defective ?

   (i) $\frac{1}{2}$ (ii) $\frac{1}{3}$ (iii) 0 (iv) $\frac{2}{3}$

5. An unbiased die is thrown once. Find the probability of getting an even number?

   (i) $\frac{1}{2}$ (ii) $\frac{5}{6}$ (iii) $\frac{3}{4}$ (iv) $\frac{4}{5}$ (v) $\frac{2}{3}$

6. Hamida and Santoshi are friends. What is the probability that both will have different birthdays? (ignoring a leap year).

   (i) $\frac{365}{366}$ (ii) $\frac{364}{365}$ (iii) $\frac{1}{365}$ (iv) $\frac{363}{365}$ (v) 1

7. A carton consist of 79 shirts of which 59 are good, 15 have minor defects and 5 have major defects. Tarun, a trader, will only accept the shirts which are good, but Simran, another trader, will only reject the shirts which have major defects. One shirt is drawn at random from the carton. What is the probability that it is acceptable to Simran?

   (i) $\frac{73}{79}$ (ii) $\frac{5}{79}$ (iii) $\frac{15}{16}$ (iv) $\frac{74}{79}$ (v) $\frac{75}{79}$

8. A game consists of tossing a coin 3 times and noting its outcome each time. Bali wins if all the tosses give the same result i.e., three heads or three tails, and loses otherwise. Calculate the probability that Bali will lose the game.

   (i) $\frac{1}{2}$ (ii) $\frac{3}{4}$ (iii) 1 (iv) $\frac{1}{4}$ (v) $\frac{4}{5}$

9. A bag contains 18 gray balls, 8 pink balls, 10 white balls and 6 blue balls. One ball is drawn at random from the bag. Find the probability that the ball drawn is neither blue nor pink.

(i) $\frac{2}{3}$ (ii) $\frac{3}{4}$ (iii) 1 (iv) $\frac{1}{3}$

10. 67 cards are numbered 1,2,3,....67 and put in a box and mixed thoroughly. A card is drawn at random. What is the probability that the number on the drawn card is a prime number?

(i) $\frac{20}{67}$ (ii) $\frac{19}{67}$ (iii) $\frac{18}{67}$ (iv) $\frac{48}{67}$ (v) $\frac{5}{17}$

11. 55 cards are numbered 1,2,3,....55 and put in a box and mixed thoroughly. A card is drawn at random. What is the probability that the number on the drawn card is an odd number?

(i) $\frac{29}{55}$ (ii) $\frac{28}{55}$ (iii) $\frac{29}{56}$ (iv) $\frac{27}{55}$

12. In a lottery, there are 16 prizes and 11 blanks. What is the probability of getting a prize?

(i) $\frac{17}{28}$ (ii) $\frac{5}{9}$ (iii) $\frac{11}{27}$ (iv) $\frac{17}{27}$ (v) $\frac{16}{27}$

13. A lot of 28 bulbs contain 15 defective ones. One bulb is drawn at random from the lot. Suppose the bulb drawn is not defective and is not replaced. Now one bulb is drawn at random from the rest. What is the probability that this bulb is not defective ?

(i) $\frac{4}{9}$ (ii) $\frac{5}{9}$ (iii) $\frac{1}{3}$ (iv) $\frac{1}{2}$

14. In a musical chair game, the person playing the music has been advised to stop playing the music at any time with in 2 minutes after she starts playing. What is the probabilty that the music will stop within the first half-minute after starting?

(i) $\frac{3}{4}$ (ii) $\frac{1}{4}$ (iii) $\frac{2}{5}$ (iv) 0 (v) $\frac{1}{2}$

15. Bharathi and Maya are friends. What is the probability that both will have same birthdays? (ignoring a leap year).

(i) 0 (ii) $\frac{1}{365}$ (iii) $\frac{2}{365}$ (iv) $\frac{1}{183}$ (v) $\frac{364}{365}$

16. Two unbiased coins are tossed simultaneously. Find the probability of getting at least one head.

(i) $\frac{3}{4}$ (ii) $\frac{1}{2}$ (iii) $\frac{1}{4}$ (iv) $\frac{4}{5}$ (v) 1

17. An unbiased die is thrown once. Find the probability of getting a prime number?

(i) $\frac{2}{3}$ (ii) $\frac{1}{2}$ (iii) $\frac{3}{4}$ (iv) $\frac{4}{5}$ (v) $\frac{5}{6}$

18. A box contains 60 discs which are numbered from 1 to 60. If one disc is drawn at random from the box, find the probability that it bears a number divisible by 5.

(i) $\frac{1}{3}$ (ii) $\frac{1}{5}$ (iii) $\frac{2}{5}$ (iv) 0 (v) $\frac{4}{5}$

19. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a clubs?

(i) $\frac{1}{13}$ (ii) $\frac{1}{4}$ (iii) $\frac{1}{26}$ (iv) $\frac{1}{52}$ (v) $\frac{3}{13}$

20. Two unbiased coins are tossed simultaneously. Find the probability of getting at most one head.

(i) 1 (ii) $\frac{1}{2}$ (iii) $\frac{4}{5}$ (iv) $\frac{3}{4}$ (v) $\frac{1}{4}$

21. Two unbiased coins are tossed simultaneously. Find the probability of getting at least two heads.

(i) $\frac{3}{4}$ (ii) 0 (iii) $\frac{1}{2}$ (iv) $\frac{1}{4}$ (v) $\frac{2}{5}$

22. One card is drawn at random from a well shuffled deck of 52 cards. What is the probability that the card drawn is a black king?

(i) $\frac{3}{13}$ (ii) $\frac{1}{52}$ (iii) $\frac{1}{26}$ (iv) $\frac{1}{4}$ (v) $\frac{1}{13}$

23. An unbiased die is thrown once. Find the probability of getting a number between 3 and 5?

(i) $\frac{1}{3}$ (ii) $\frac{2}{7}$ (iii) $\frac{1}{6}$ (iv) $\frac{5}{6}$ (v) 0

24. There are 46 students in a class room of whom 20 are boys and 26 are girls. From these students, one is choosen at random. What is the probability that the choosen student is a girl ?

(i) $\frac{7}{12}$ (ii) $\frac{14}{23}$ (iii) $\frac{10}{23}$ (iv) $\frac{13}{23}$ (v) $\frac{12}{23}$

25. When two dice are thrown simultaneously, how many elementary events are possible?

(i) 37 (ii) 34 (iii) 39 (iv) 36 (v) 35

## Assignment Key

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|---|---|---|---|---|---|
| 1) (v) | 2) (iii) | 3) (v) | 4) (ii) | 5) (i) | 6) (ii) |
| 7) (iv) | 8) (ii) | 9) (i) | 10) (ii) | 11) (ii) | 12) (v) |
| 13) (i) | 14) (ii) | 15) (ii) | 16) (i) | 17) (ii) | 18) (ii) |
| 19) (ii) | 20) (iv) | 21) (iv) | 22) (iii) | 23) (iii) | 24) (iv) |
| 25) (iv) | | | | | |