

CLASS X
PROBABILITY-2025-26

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- 1 A card is drawn at random from a well shuffled pack of 52 playing cards. Find the probability of getting a red face card.
A) $\frac{1}{26}$ B) $\frac{2}{26}$ C) $\frac{3}{26}$ D) $\frac{5}{26}$
- 2 A die is thrown once. What is the probability of getting a number greater than 4?
A) $\frac{1}{3}$ B) $\frac{2}{3}$ C) $\frac{1}{6}$ D) $\frac{1}{2}$
- 3 One card is drawn from a pack of 52 cards, each of the 52 cards being equally likely to be drawn. Find the probability that the card drawn is an ace.
A) $\frac{2}{13}$ B) $\frac{1}{13}$ C) $\frac{1}{26}$ D) $\frac{1}{52}$
- 4 A bag contains 3 red balls, 5 black balls and 4 white balls. A ball is drawn at random from the bag. What is the probability that the ball is white?
A) $\frac{1}{52}$ B) $\frac{1}{4}$ C) $\frac{1}{12}$ D) $\frac{1}{3}$
- 5 A letter is chosen at random from the letters of the word 'ASSASSINATION' Find the probability that the letter chosen is a vowel?
A) $\frac{6}{13}$ B) $\frac{5}{13}$ C) $\frac{4}{13}$ D) $\frac{3}{13}$
- 6 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting the jack of hearts.
A) $\frac{1}{52}$ B) $\frac{1}{26}$ C) $\frac{1}{12}$ D) $\frac{1}{13}$
- 7 Two players, Sangeeta and Reshma, play a tennis match. It is known that the probability of winning the match by Sangeeta is 0.62. What is the probability of winning the match by Reshma?
A) 0.38 B) 0.62 C) 0.28 D) 1
- 8 A letter of English alphabet is chosen at random. Determine the probability that the chosen letter is a consonant.
A) $\frac{22}{26}$ B) $\frac{21}{26}$ C) $\frac{5}{26}$ D) $\frac{4}{26}$
- 9 A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1, 2, 3, 4, 5, 6, 7, 8 and these are equally likely outcomes. Find the probability that the arrow will point at any factor of 8.
A) $\frac{1}{8}$ B) $\frac{1}{4}$ C) $\frac{1}{2}$ D) 0
- 10 A ticket is drawn at random from a bag containing tickets numbered from 1 to 40. Find the probability that the selected ticket has a number which is a multiple of 5.
A) $\frac{8}{52}$ B) $\frac{1}{5}$ C) $\frac{1}{52}$ D) $\frac{2}{5}$
- 11 A pair of dice is thrown once. Find the probability of getting the same number on each dice.
A) $\frac{1}{6}$ B) $\frac{1}{12}$ C) $\frac{1}{36}$ D) $\frac{1}{3}$
- 12 Two dice are rolled once. Find the probability of getting such numbers on the two dice, whose product is 12.
A) $\frac{1}{3}$ B) $\frac{1}{6}$ C) $\frac{1}{36}$ D) $\frac{1}{9}$
- 13 A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball from the bag is thrice that of a red ball, find the number of blue balls in the bag.
A) 5 B) 15 C) 10 D) 3
- 14 Cards numbered from 11 to 60 are kept in a box. If a card is drawn at random from the box, find the probability that the number on the card is a perfect square number.
A) $\frac{2}{25}$ B) $\frac{1}{25}$ C) $\frac{4}{49}$ D) $\frac{1}{50}$

- 15 Cards numbered from 11 to 60 are kept in a box. If a card is drawn at random from the box, find the probability that the number on the card is a prime number less than 25
 A) $\frac{1}{10}$ B) $\frac{5}{49}$ C) $\frac{4}{49}$ D) $\frac{1}{2}$
- 16 Two coins are tossed simultaneously. Find the probability of getting exactly one head.
 (A) $\frac{1}{4}$ (B) $\frac{1}{2}$ (C) $\frac{2}{3}$ (D) $\frac{3}{4}$
- 17 Cards marked with numbers 3, 4, 5,, 50 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probability that number on the drawn card is divisible by 7
 A) $\frac{6}{48}$ B) $\frac{7}{47}$ C) $\frac{7}{48}$ D) $\frac{6}{47}$
- 18 Cards, marked with numbers 5 to 50, are placed in a box and mixed thoroughly. A card is drawn from the box at random. The probability that the number on the taken card is a number which is a perfect square is _____.
 A) $\frac{3}{46}$ B) $\frac{5}{46}$ C) $\frac{5}{45}$ D) $\frac{6}{46}$
- 19 Cards, marked with numbers 5 to 50, are placed in a box and mixed thoroughly. A card is drawn from the box at random. Find the probability that the number on the taken card is a prime number less than 10.
 A) $\frac{1}{23}$ B) $\frac{1}{24}$ C) $\frac{2}{47}$ D) $\frac{1}{47}$
- 20 Cards, marked with numbers 5 to 50, are placed in a box and mixed thoroughly. A card is drawn from the box at random. Find the probability that the number on the taken card is a number which is a perfect square.
 A) $\frac{5}{46}$ B) $\frac{1}{46}$ C) $\frac{1}{47}$ D) $\frac{2}{47}$
- 21 A bag contains 5 red, 4 blue and 3 green balls. A ball is taken out of the bag at random. Find the probability that the selected ball is of red colour
 A) $\frac{5}{12}$ B) $\frac{1}{12}$ C) $\frac{4}{12}$ D) $\frac{3}{12}$
- 22 A bag contains 5 red, 4 blue and 3 green balls. A ball is taken out of the bag at random. Find the probability that the selected ball which is not of green colour.
 A) $\frac{5}{12}$ B) $\frac{4}{12}$ C) $\frac{3}{4}$ D) $\frac{1}{9}$
- 23 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability of drawing a face card.
 A) $\frac{3}{13}$ B) $\frac{4}{13}$ C) $\frac{12}{13}$ D) $\frac{1}{13}$
- 24 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability of drawing a card which is neither a king nor a red card.
 A) $\frac{3}{13}$ B) $\frac{4}{13}$ C) $\frac{12}{13}$ D) $\frac{6}{13}$
- 25 15 cards, numbered 1, 2, 3, ..., 15 are put in a box and mixed thoroughly. A card is drawn at random from the box. Find the probability that the card drawn bears an even number
 A) $\frac{6}{15}$ B) $\frac{7}{15}$ C) $\frac{8}{15}$ D) $\frac{1}{15}$
- 26 15 cards, numbered 1, 2, 3, ..., 15 are put in a box and mixed thoroughly. A card is drawn at random from the box. Find the probability that the card drawn bears a number divisible by 2 or 3.
 A) $\frac{9}{15}$ B) $\frac{2}{3}$ C) $\frac{8}{15}$ D) $\frac{11}{15}$
- 27 A card is drawn at random from a pack of 52 playing cards. Find the probability that the card drawn is neither an ace nor a king
 A) $\frac{3}{13}$ B) $\frac{11}{13}$ C) $\frac{12}{13}$ D) $\frac{6}{13}$
- 28 Find the probability of getting 53 Fridays in a leap year.
 A) $\frac{3}{7}$ B) $\frac{1}{7}$ C) $\frac{3}{7}$ D) 1

- 29 The king, queen and jack of diamonds are removed from a pack of 52 cards and then the pack is well shuffled. A card is drawn from the remaining cards. Find the probability of getting a card of diamonds
 A) $\frac{10}{49}$ B) $\frac{8}{49}$ C) $\frac{11}{49}$ D) $\frac{12}{49}$
- 30 The king, queen and jack of diamonds are removed from a pack of 52 cards and then the pack is well shuffled. A card is drawn from the remaining cards. Find the probability of getting a card of a jack
 A) $\frac{1}{49}$ B) $\frac{4}{49}$ C) $\frac{3}{49}$ D) $\frac{12}{49}$
- 31 Three cards of spades are lost from a pack of 52 playing cards. The remaining cards were well shuffled and then a card was drawn at random from them. Find the probability that the drawn cards is of black colour.
 A) $\frac{24}{49}$ B) $\frac{23}{49}$ C) $\frac{22}{49}$ D) $\frac{21}{49}$
- 32 Find the probability that a leap year should have exactly 52 Tuesdays.
 A) $\frac{5}{7}$ B) $\frac{1}{7}$ C) $\frac{3}{7}$ D) $\frac{2}{7}$
- 33 Cards marked with numbers 3, 4, 5,, 50 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probability that number on the drawn card is divisible by 9
 A) $\frac{4}{48}$ B) $\frac{5}{48}$ C) $\frac{3}{48}$ D) $\frac{1}{48}$
- 34 Cards marked with numbers 3, 4, 5,, 50 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probability that number on the drawn card is a number which is a perfect square.
 A) $\frac{4}{48}$ B) $\frac{5}{48}$ C) $\frac{3}{48}$ D) $\frac{1}{48}$
- 35 Cards bearing numbers 1, 2, 3, 4, 5,, 18 are kept in a bag. A card is drawn at random from the bag. Find the probability of getting a card bearing a prime number less than 15.
 A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{1}{3}$ D) $\frac{1}{6}$
- 36 Cards bearing numbers 1, 2, 3, 4, 5,, 18 are kept in a bag. A card is drawn at random from the bag. Find the probability of getting a card bearing a number divisible by 3 and 5.
 A) $\frac{1}{2}$ B) $\frac{1}{18}$ C) $\frac{1}{3}$ D) $\frac{1}{6}$
- 37 A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is white or blue.
 A) $\frac{7}{18}$ B) $\frac{1}{18}$ C) $\frac{1}{3}$ D) $\frac{11}{18}$
- 38 A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is red or black
 A) $\frac{7}{18}$ B) $\frac{1}{18}$ C) $\frac{1}{3}$ D) $\frac{11}{18}$
- 39 A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is not white
 A) $\frac{12}{18}$ B) $\frac{13}{18}$ C) $\frac{1}{3}$ D) $\frac{11}{18}$
- 40 A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is neither white nor black.
 A) $\frac{1}{2}$ B) $\frac{1}{18}$ C) $\frac{1}{3}$ D) $\frac{1}{6}$
- 41 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is a king or a jack
 A) $\frac{2}{13}$ B) $\frac{1}{13}$ C) $\frac{11}{13}$ D) $\frac{12}{13}$
- 42 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is a non-ace
 A) $\frac{2}{13}$ B) $\frac{1}{13}$ C) $\frac{11}{13}$ D) $\frac{12}{13}$

- 43 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is a red card
 A) $\frac{1}{2}$ B) $\frac{25}{52}$ C) $\frac{13}{52}$ D) $\frac{12}{52}$
- 44 A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is neither a king nor a queen.
 A) $\frac{2}{13}$ B) $\frac{1}{13}$ C) $\frac{11}{13}$ D) $\frac{12}{13}$
- 45 A box contains 19 balls bearing numbers 1, 2, 3,,19. A ball is drawn at random from the box. What is the probability that the number on the ball is a prime number
 A) $\frac{7}{19}$ B) $\frac{8}{19}$ C) $\frac{9}{19}$ D) $\frac{7}{19}$
- 46 A box contains 19 balls bearing numbers 1, 2, 3,,19. A ball is drawn at random from the box. What is the probability that the number on the ball is divisible by 3 or 5
 A) $\frac{7}{19}$ B) $\frac{8}{19}$ C) $\frac{9}{19}$ D) $\frac{7}{19}$
- 47 A box contains 19 balls bearing numbers 1, 2, 3,,19. A ball is drawn at random from the box. What is the probability that the number on the ball is neither divisible by 5 nor by 10
 A) $\frac{16}{19}$ B) $\frac{8}{19}$ C) $\frac{9}{19}$ D) $\frac{7}{19}$
- 48 A box contains 19 balls bearing numbers 1, 2, 3,,19. A ball is drawn at random from the box. What is the probability that the number on the ball is an even number.
 A) $\frac{7}{19}$ B) $\frac{8}{19}$ C) $\frac{9}{19}$ D) $\frac{7}{19}$
- 49 From a pack of 52 playing cards, jacks, queens, kings and aces of red colour are removed. From the remaining a card is drawn at random. Find the probability that the card drawn is a black queen .
 A) $\frac{1}{22}$ B) $\frac{3}{22}$ C) $\frac{1}{23}$ D) $\frac{1}{44}$
- 50 From a pack of 52 playing cards, jacks, queens, kings and aces of red colour are removed. From the remaining a card is drawn at random. Find the probability that the card drawn is a red card
 A) $\frac{1}{22}$ B) $\frac{3}{22}$ C) $\frac{1}{23}$ D) $\frac{9}{22}$
- 51 From a pack of 52 playing cards, jacks, queens, kings and aces of red colour are removed. From the remaining a card is drawn at random. Find the probability that the card drawn is a black jack
 A) $\frac{1}{22}$ B) $\frac{3}{22}$ C) $\frac{1}{23}$ D) $\frac{1}{44}$
- 52 From a pack of 52 playing cards, jacks, queens, kings and aces of red colour are removed. From the remaining a card is drawn at random. Find the probability that the card drawn is a face card .
 A) $\frac{1}{22}$ B) $\frac{3}{22}$ C) $\frac{1}{23}$ D) $\frac{1}{44}$
- 53 Two dice are thrown simultaneously. What is the probability that:
 5 will not come up on either of them?
 A) $\frac{25}{36}$ B) $\frac{1}{36}$ C) $\frac{11}{36}$ D) $\frac{12}{36}$

- 54 Two dice are thrown simultaneously. What is the probability that: 5 will come up on at least one?
 A) $\frac{25}{36}$ B) $\frac{1}{36}$ C) $\frac{11}{36}$ D) $\frac{12}{36}$
- 55 Two dice are thrown simultaneously. What is the probability that 5 will come up at both dice?
 A) $\frac{25}{36}$ B) $\frac{1}{36}$ C) $\frac{11}{36}$ D) $\frac{12}{36}$
- 56 Two dice are rolled once. Find the probability of getting such numbers on two dice, whose product is a perfect square.
 A) $\frac{2}{9}$ B) $\frac{7}{36}$ C) $\frac{3}{36}$ D) $\frac{12}{36}$
- 57 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of drawing:
 (i) an ace
 A) $\frac{2}{13}$ B) $\frac{3}{52}$ C) $\frac{1}{13}$ D) $\frac{1}{26}$
- 58 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of drawing: (ii) '2' of spades
 A) $\frac{2}{13}$ B) $\frac{1}{52}$ C) $\frac{1}{13}$ D) $\frac{1}{26}$
- 59 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of drawing: '10' of a black suit.
 A) $\frac{2}{13}$ B) $\frac{3}{52}$ C) $\frac{1}{13}$ D) $\frac{1}{26}$
- 60 Cards marked with the numbers 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 an even number
 A) $\frac{1}{2}$ B) $\frac{1}{100}$ C) $\frac{49}{100}$ D) $\frac{1}{50}$
- 61 Cards marked with the numbers 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 number less than 14
 A) $\frac{1}{100}$ B) $\frac{12}{100}$ C) $\frac{13}{100}$ D) $\frac{11}{100}$
- 62 Cards marked with the numbers 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 number which is a perfect square.
 A) $\frac{10}{100}$ B) $\frac{8}{100}$ C) $\frac{9}{100}$ D) $\frac{11}{100}$
- 63 Cards marked with the numbers 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 prime number less than 20.
 A) $\frac{10}{100}$ B) $\frac{8}{100}$ C) $\frac{9}{100}$ D) $\frac{11}{100}$
- 64 All the three face cards of spades are removed from a well-shuffled pack of 52 cards. A card is then drawn at random from the remaining pack. Find the probability of getting a black face card.
 A) $\frac{1}{49}$ B) $\frac{2}{49}$ C) $\frac{3}{49}$ D) $\frac{4}{49}$
- 65 All the three face cards of spades are removed from a well-shuffled pack of 52 cards. A card is then drawn at random from the remaining pack. Find the probability of getting a queen.
 A) $\frac{1}{49}$ B) $\frac{2}{49}$ C) $\frac{3}{49}$ D) $\frac{4}{49}$
- 66 All the three face cards of spades are removed from a well-shuffled pack of 52 cards. A card is then drawn at random from the remaining pack. Find the probability of getting a black card.
 A) $\frac{22}{49}$ B) $\frac{23}{49}$ C) $\frac{13}{49}$ D) $\frac{25}{49}$
- 67 The king, queen and jack of clubs are removed from a deck of 52 playing cards and the remaining cards are shuffled. A card is drawn from the remaining cards. Find the probability of getting a card of heart .

- A) $\frac{22}{49}$ B) $\frac{23}{49}$ C) $\frac{13}{49}$ D) $\frac{25}{49}$
- 68 The king, queen and jack of clubs are removed from a deck of 52 playing cards and the remaining cards are shuffled. A card is drawn from the remaining cards.
Find the probability of getting a card of queen
A) $\frac{13}{49}$ B) $\frac{12}{49}$ C) $\frac{14}{49}$ D) $\frac{25}{49}$
- 69 The king, queen and jack of clubs are removed from a deck of 52 playing cards and the remaining cards are shuffled. A card is drawn from the remaining cards.
Find the probability of getting a card of clubs
A) $\frac{10}{49}$ B) $\frac{12}{49}$ C) $\frac{13}{49}$ D) $\frac{9}{49}$
- 70 All kings, queens and aces are removed from a pack of 52 cards. The remaining cards are well shuffled and then a card is drawn from it. Find the probability that the drawn card is a black face card.
A) $\frac{1}{20}$ B) $\frac{1}{10}$ C) $\frac{1}{21}$ D) $\frac{1}{22}$
- 71 The probability of selecting a red ball at random from a jar that contains only red, blue and orange balls is $\frac{1}{4}$. The probability of selecting a blue ball at random from the same jar is $\frac{1}{3}$. If the jar contains 10 orange balls, find the total number of balls in the jar.
A) 24 B) 6 C) 10 D) 18
- 72 A bag contains 24 balls out of which x are white. If one ball is drawn at random the probability of drawing a white ball is y . 12 more white balls are added to the bag. Now if a ball is drawn from the bag, the probability of drawing the white ball is $\frac{5}{3}y$. Find the value of x .
A) 5 B) 8 C) 10 D) 6

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REVISION

- A card is drawn from a pack of cards numbered 1 to 52. The probability that the number on the card is a perfect square is ____
- Two unbiased dice are thrown. The probability that the total score is more than 5 is ____
- From a well shuffled pack of cards, a card is drawn at random. Find the probability of getting a black queen.
- The probability of getting a number between 1 and 100 which is divisible by 1 and itself only is ____
- A box contains 90 discs, numbered from 1 to 90. If one disc is drawn at random from the box, the probability that it bears prime-number less than 23 is ____
- A box contains cards numbered 6 to 50. A card is drawn at random from the box. The probability that the drawn card has a number which is a perfect square, is ____
- A bag contains 5 black balls, 4 white balls and 3 red balls. If a ball is selected random, the probability that it is a black or red ball is ____
- There are 25 tickets bearing numbers from 1 to 25. One ticket is drawn at random. The probability that the number on it is a multiple of 5 or 6 is ____
- If three different coins are tossed together, then find the probability of getting two heads.
- A bag contains 4 red and 6 black balls. A ball is taken out of the bag at random. Find the probability of getting a black ball.
- A bag contains 3 red and 5 black balls. A ball is drawn at random from the bag. What is the probability that the drawn ball is not red?

12. Cards bearing numbers 3 to 20 are placed in a bag and mixed thoroughly. A card is taken out from the bag at random. What is the probability that the number on the card taken out is an even number?
13. The probability that it will rain tomorrow is 0.85. What is the probability that it will not rain tomorrow?
14. Among 52 cards, there are 12 face cards. Probability that a card drawn at random is not a face card
15. Out of 400 bulbs in a box, 15 bulbs are defective. One bulb is taken out at random from the box. Find the probability that the drawn bulb is not defective.
16. A pair of dice is thrown once. Find the probability of getting the same number on each dice.
17. A bag contains 5 red, 4 blue and 3 green balls. A ball is taken out of the bag at random. Find the probability that the selected ball is not of green colour.
18. A card is drawn at random from a well-shuffled deck of playing cards. Find the probability of drawing a face card.
19. Two different dice are thrown together. Find the probability that the numbers obtained have a product less than 16.
20. A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is white or blue.
21. A letter is chosen at random from the letters of the word 'ASSASSINATION' Find the probability that the letter chosen is a vowel?
22. A letter of English alphabet is chosen at random. Determine the probability that the chosen letter is a consonant.
23. Two dice are rolled once. Find the probability of getting such numbers on the two dice, whose product is 12.
24. A card is drawn at random from a well shuffled pack of 52 playing cards. Find the probability of getting a red face card.
25. One card is drawn from a deck of 52 cards. Find the probability of getting the jack of hearts