CBSE 10th Probability Unsolved Paper

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Solved Paper

Question 1:

What is the probability that an ordinary year has 53 Sundays?

Question 2:

Two unbiased dice are thrown. Find the probability that the total of the numbers on the dice is greater than 10.

Question 3:

An urn contains 10 red and 8 white balls. One ball is drawn at random. Find the probability that the ball drawn is white.

Question 4:

A die is thrown. Find the probability of getting:

- **(i) a prime number**
- **(ii) 2 or 4**
- **(iii) a multiple of 2 or 3**
- **(iv) an even prime number**
- **(v) a number greater than 5**
- **(vi) a number lying between 2 and 6**

Question 5:

In a simultaneous throw of a pair of dice, find the probability of getting:

- **(i) 8 as the sum**
- **(ii) a doublet**
- **(iii) a doublet of prime numbers**
- **(iv) a doublet of odd numbers**
- **(v)**

(vi) **a sum greater than 9**
(vii) **an even number on first**
(viii) **an even number on one and a multiple of 3 on the other**
(ix) **neither 9 nor 1 1 as the sum of the numbers on the faces**
(x) **a sum less than 6.**
(xi) **a sum less than 7.**
(xii) **a sum more than 7.**
(xiii) **at least once.**
(xiv) **a number other than 5 on any dice.**

Question 6:

A card is drawn at random from a pack of 52 cards. Find the probability that card drawn is

(i) **a black king**
(ii) **either a black card or a king**
(iii) **black and a king**
(iv) **a jack, queen or a king**
(v) **neither a heart nor a king**
(vi) **spade or an ace**
(vii) **neither an ace nor a king**
(viii) **Neither a red card nor a queen.**
(ix) **other than an ace**
(x) **a ten**
(xi) **a spade**
(xii) **a black card**
(xiii) **the seven of clubs**
(xiv) **jack**
(xv) **the ace of spades**
(xvi) **a queen**

Question 7:

An urn contains 10 red and 8 white balls. One ball is drawn at random. Find the probability that the ball drawn is white.

Question 8:

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 drawn is:

(i) White
(ii) Red
(iii) Black
(iv) Not red

Question 9:

A bag contains 6 red, 8 black and 4 white balls. A ball is drawn at random. What is the probability that ball drawn is not black?

Question 10:

A bag contains 5 white and 7 red balls. One ball is drawn at random. What is the probability that ball drawn is white?

Question 11:

If the probability of winning a game is 0.3, What is the probability of losing it?

Question 12:

A bag contains 5 black, 7 red and 3 white balls. A ball is drawn from the bag at random. Find the probability that the ball drawn is :

(i) Red
(ii) Black or white
(iii) Not black

Question 13:

A bag contains 4 red, 5 black and 6 white balls. A ball is drawn from the bag at random. Find the probability that the ball drawn is :

(i) White
(ii) Red
(iii) Not Black
(iv) Red or white

Question 14:

A black dice and a white dice are thrown at the same time. Write all the possible outcomes. What is the probability?

(i) That the sum of the two numbers that turn up is 8?
(ii) Of obtaining a total of 6?
(iii) Of obtaining a total of 10?
(iv) Of obtaining the same number on both dice?
(v) Of obtaining a total more than 9?
(vi) That the sum of the two numbers appearing on the top of the dice is 13?
(vii) That the sum of the numbers appearing on the top of the dice is less than or equal to 12?

Question 15:

One card is drawn from a well shuffled deck of 52 cards. Find the probability of getting:

(i) A kind of red suit
(ii) A face card
(iii) A red face card
(iv) A queen of black suit
(v) A spade

Question 16:

A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is :

(i) Red
(ii) Black

Question 17:

In a class, there are 18 girls and 16 boys. The class teacher wants to choose one pupil for class monitor. What she does, she writes the name of each pupil on a card and puts them into a basket and mixes thoroughly. A child is asked to pick one card from the basket. What is the probability that the name written on the card is:

(i) the name of a girl
(ii) the name of a boy

Question 18:

A bag contains 5 red, 8 white and 7 black balls. A ball is drawn at random from the bag. Find the probability that the drawn ball is

(i) red or white
(ii) not black
(iii) neither white nor black.

Question 19:

A bag contains 8 red, 6 white and 4 black balls. A ball is drawn at random from the bag. Find the probability that the drawn ball is

(i) Red or white
(ii) Not black
(iii) Neither white nor black

Question 20:

It is given that m a group of 3 students, the probability of 2 students not having the same birthday is 0.992. What is the probability that the 2 students have the same birthday?

Question 21:

A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is

(i) red?
(ii) not red?

Question 22:

12 defective pens are accidently mixed with 132 good ones. It is not possible to just look at pen and tell whether or not it is defective. one pen is taken out at random from this lot. Determine the probability that the pen taken out is good one.

Question 23:

A bag contains 6 red balls and some blue balls. If the probability of drawing a blue ball the bag is twice that of a red ball, find the number of blue balls in the bag.

Question 24:

A bag contains tickets numbered 11, 12, 13,..., 30. A ticket is taken out from the bag at random. Find the probability that the number on the drawn ticket

(i) Is a multiple of 7
(ii) Is greater than 15 and a multiple of 5.

Question 25:

Two dice are thrown simultaneously. What is the probability that:

(i) 5 will not come up on either of them?
(ii) 5 will come up on at least one?
(iii) 5 will come up at both dice?

Question 26:

A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red? (ii) white? (iii) not green?

Question 27:

A box contains 90 discs which are numbered form 1 to 90. If one disc is drawn at random from the box, find the probability that it bears

(i) A two-digit number
(ii) A perfect square number
(iii) A number divisible by 5

Question 28:

A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball is double that of a red ball, determine the number of blue balls in the bag.

Question 29:

A box contains 12 balls out of which x are black. If one ball is drawn at random from the box, what is the probability that it will be a black ball? If 6 more black balls are put in the box, the probability of drawing a black ball is now double of what it was before. Find x.

Question 30:

A jar contains 24 marbles, some are green and others are blue. If a marble is drawn at random from the jar, the probability that it is green is $\frac{2}{3}$. Find the number of blue balls in the jar.