MATHS

BOOKS - RD SHARMA MATHS (HINGLISH)

DATA HANDLING-IV (PROBABILITY)

Others

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1. Three unbiased coins are tossed together.

Find the probability of getting:

all heads

(ii) two heads

one head

(iv) at least two heads

2. Find the probability that a leap year, selected at random, will contain 53 Sundays.

3. What is the probability that a number selected from the number 1,2,3..25, is prime number, when each of the given numbers is equally likely to be selected?

4. Tickets numbered from 1 to 20 are mixed up together and then a ticket is drawn at random. What is the probability that the ticket has a number which is a multiple of 3 or 7?

5. 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: (i) an ace (ii) red (iii) either red or king (iv) red and a king (v) a face card (vi) a red face card (vii) '7' of spades (viii)'10' of a black suit

6. 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

(i) the card drawn is: a face card

(ii) a red face card

(iii) '2' of spades

(iv) '10 of a black suit

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7. The king, queen and jack of clubs are removed from a deck of 52 playing cards and the well shuffled. One card is selected from the remaining cards. Find the probability of getting.

(i) a heart

(ii) a king

(iii) a club

(iv) the 10 of hearts

8. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. What is the probability of drawing a blue marble?

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9. It is know that a box of 600 electric bulbs contains 12 defective bulbs. One bulb is taken out at random from this box. What is the probability that it is a non-defective bulb?

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10. 17 cards numbered 1,2,3....., 17 are put in a box and mixed thoroughly. One person draws a card from the box. Find the prob

(i) the card is: odd ,

the card is: even

(ii) a prime

(iii) divisible by 3

(iv)divisible by 3 and 2 both

11. 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:

(i) a number which is a perfect square

(ii) a prime number less than 20.

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12. A bag contains 5 red balls, 8 white balls, 4 green balls and 7 black balls. If one ball is

drawn at random, find the probability that it is:

(i) black

(ii) red

(iii) not green

13. Two dice are thrown simultaneously: Find the probability of its occurrence is

An even number as the sum

The sum as a prime number

A total of at least 10

A doublet of even number

A multiple of 2 on one dice and a multiple of 3

on the other dice.

Same number on both dice

A multiple of 3 as the sum

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14. The probability that it will rain tomorrow is

0.85. What is the probability that it will not

rain tomorrow?

15. A die is thrown. Find the probability of getting:

(i) a prime number

(ii) 2 or 4

(iii) a multiple of 2 or 3

16. In a simultaneous thrown of a pair of dice, find the probability of getting:

(i) 8 as the sum

(ii) a doublet

(iii) a doublet of prime number

(iv) a doublet of odd number

17. Three coins are tossed together. Find the probability of getting:

(i) exactly two heads

(ii) at least two heads

(iii) at least one head and one tail

(iv) no tails

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

(i) a ten

(ii) a spade

(iii) a black card

(iv) the seven of clubs

19. 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?

20. 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?

21. What is the probability that a number selected from the numbers $1, 2, 3, \ldots, 15$ is a multiple of 4?

22. 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?

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

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24. 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:

(a) red

(b) black

25. A bag contains 5 red marbles, 8 white marbles, 4 green marbles. What is the probability that if one marble is taken out of the bag at random, it will be

(i) red

(ii) white

(iii) not green

26. If you put 21 consonants and 5 vowels in a bag. What would carry greater probability? Getting a consonant or a vowel? Find each probability.

27. If we have 15 boys and 5 girls in a class which carries a higher probability? Getting a copy belonging to a boy or a girl. Can you give it a value?

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28. If you have a collection of 6 pairs of white socks and 3 pairs of black socks. What is the probability that a pair you pick without looking is

(i) white?

(ii) black?

29. If you have a spinning wheel with 3-green sectors, 1-blue sector and 1-red sector. What is the probability of getting a green sector? Is it the maximum?