WANDOOR GANITHAM - S S L C LAST BELL 2021

3211E **FOCUS AREA - MATHEMATICS OF CHANCE**

1) A coin is tossed .

a) What is the the probability of getting a head ?

b) What is the the probability of not getting a head ? (2)

2) Each letter of the word " POSSESSION " is written on paper slips and put in a box . A slip is to be drawn from it .

a) What is the probability of getting the letter S ?

b) What is the probability of not getting the letter S ? (2)

3) In a class there are 20 boys and 30 girls . One student is to be selected as leader .

a) What is the probability that the class leader will be a boy ?

b) What is the probability that the class leader will not be a boy ?

c)What is the probability that the class leader will be a boy if 10 girls are absent? (3)

4) A dice with faces numbered from 1 to 6 is rolled .

a) What is the probability of getting an even number ?

b) What is the probability of getting an odd number ?

c) What is the probability of getting a prime number ? (3)

5) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the probability of both digits being the same ?

c) What is the probability of both digits not being the same ? (3)

6) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the smallest possible sum of the digits ?

c) What is the largest possible sum of the digits ?

d) What is the probability of the sum of the digits being a prime ? (4)

7) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the smallest possible sum of the digits ?

c) What is the largest possible sum of the digits ?

d) What is the probability of the sum of the digits being a perfect square ? (4)

8) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the smallest possible product of the digits ?

c) What is the largest possible product of the digits ?

d) What is the probability of the product of the digits being a perfect square ? (4)

9) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the probability of the digits being the same ?

c) What is the probability of the first digit being larger ?

d) What is the probability of the first digit being smaller ? (4)

10) One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the smallest possible product of the digits ?

c) What is the largest possible product of the digits ?

d) What is the probability of the product of the digits being a prime ? (4)

11) One is asked to say a three -digit number .

a) How many three digit numbers are there ?

b) What is the probability of getting a multiple of 100 ?

c) What is the probability of getting a multiple of 111 ? (3)

12) One is asked to say a three -digit number .

a) How many three digit numbers are there ?

b) What is the probability of the digits being the same ?

c) What is the probability that only two of the digits being 1 ?

d) What is the probability that the product of the digits being a prime ? (4)

13) Numbers from 1 to 20 are written on slips of paper and put in a box . A slip is to be drawn from it .

a) What is the probability that the number written in it is an even number ?

b) What is the probability that the number written in it is an odd number ?

c) What is the probability that the number written in it is a prime number ? (3)

14) Numbers from 1 to 50 are written on slips of paper and put in a box . A slip is to be drawn from it .

a) What is the probability that the number written in it is an even number ?

b) What is the probability that the number written in it is an odd number ?

c) What is the probability that the number written in it is a perfect square ? (3)

15) A bag contains 12 red and 8 blue balls . Take one ball from this .

a) What is the probability of getting a red ball ?

b) What is the probability of getting a blue ball ?

c) If some balls are taken out from the box ,the probability of getting a red ball is $\frac{1}{m}$ what will be the probability of getting a blue ball ? (3)

16) A bag contains 10 white and 8 blue balls . In another box there are 15 white and 12 blue balls . Take one ball from this

a) What is the probability of getting a white ball from the first bag ?

b) What is the probability of getting a white ball from the second bag ?

c) If all the balls are put in a single bag ,what is the probability of getting a white ball from it ?

17) A box contains 35 apples and 45 oranges . Take one from this .

a) What is the probability of getting an apple ?

b) What is the probability of getting an orange ?

c) If 20 more apples are put in the box ,What is the probability of getting an orange ?(3)

18) A bag contains 60 yellow and 40 black beads . Take one bead from this

a) What is the probability of getting a yellow bead ?

b) What is the probability of getting a black bead ?

c) If 10 yellow beads are taken out from the bag , what is the probability of getting a black bead ? (3)

19) A bag contains 25 white and 35 green beads . Take one bead from this

a) What is the probability of getting a green bead ?

b) What is the probability of getting a white bead ?

c) How many more white beads are to be put in the box to make the probability of getting a green bead is $\frac{5}{9}$? (3)

20) A bag contains 50 mangoes and some oranges . Take one from this . The probability of getting a mango is $\frac{5}{7}$.

a) How many fruits are there in the box ?

b) What is the probability of getting an orange ?

c) If 10 mangoes are taken out from the box , what will be the probability of getting an orange ? (3)

21) A bag contains 60 red and some blue beads . Take one bead from this .

The probability of getting a blue bead is $\frac{1}{3}$.

a) What is the probability of getting a red bead ?

b) How many blue beads are there in the bag ?

c)If 10 more blue beads are put in the bag ,what is the probability of getting a red beard?

22) Consider a leap year .

a) How many days are there in a leap year ?

b) What is the probability of occurring 53 saturdays in a leap year ?

c) What is the probability of occurring 53 saturdays in a non - leap year ? (5)

23) a) How many days are there in the month January ?

b) What is the probability of occurring 5 sundays in January ?

c) What is the probability of occurring 5 sundays in February of a leap year ? (3)