DEVESH TEDIA CLASSES

Above muthoot finance bank, awadhpuri, bhopal

D.T.CLASSES
Class 09 - Mathematics

Section A

1. A girl calculates that the probability of her winning the first prize in a lottery is 0.08. If 6000 tickets **[1]** are sold, how many tickets has she bought?

   a) 750　　　　　　　　　　　　　b) 480

   c) 40　　　　　　　　　　　　　d) 240

2. If an event cannot occur then its probability is **[1]**

   a) 1　　　　　　　　　　　　　b) $\frac{1}{2}$

   c) 0　　　　　　　　　　　　　d) $\frac{3}{4}$

3. A month is selected at random in a year. The probability that it is March or October, is **[1]**

   a) $\frac{1}{4}$　　　　　　　　　　　b) $\frac{1}{12}$

   c) $\frac{3}{4}$　　　　　　　　　　　d) $\frac{1}{6}$

4. Two dice are rolled together. The probability of getting a sum more than 9 is **[1]**

   a) $\frac{1}{2}$　　　　　　　　　　　b) $\frac{5}{6}$

   c) $\frac{1}{6}$　　　　　　　　　　　d) $\frac{5}{18}$

5. The probability that a boy will get married to his girlfriend is $\frac{2}{7}$, then the probability that he will **[1]** not get married to his girlfriend will be:-

   a) $\frac{7}{2}$　　　　　　　　　　　b) $\frac{7}{10}$

   c) $\frac{5}{7}$　　　　　　　　　　　d) $\frac{2}{7}$

6. Two coins are tossed 1000 times and the outcomes are recorded as below : **[1]**

Number of heads	2	1	0
Frequencey	200	550	250

   Based on this information, the probability for at most one head is

   a) $\frac{3}{4}$　　　　　　　　　　　b) $\frac{1}{4}$

   c) $\frac{1}{5}$　　　　　　　　　　　d) $\frac{4}{5}$

7. 3 rotten eggs are mixed with 12 good ones. One egg is chosen at random. The probability of **[1]** choosing a rotten egg is

   a) $\frac{1}{15}$　　　　　　　　　　　b) $\frac{2}{5}$

   c) $\frac{1}{5}$　　　　　　　　　　　d) $\frac{4}{5}$

8. A die is rolled once. The probability that the obtained number is more than 5, is: **[1]**

a) $\frac{5}{6}$ b) $\frac{2}{3}$

c) $\frac{1}{3}$ d) $\frac{1}{6}$

9. Letters A to F are mentioned on six faces of a die such that each face has a different letter. Two such dice are thrown simultaneously. The probability that vowels turn up on both the dice is: **[1]**

     a) $\frac{1}{36}$ b) $\frac{1}{3}$

     c) $\frac{1}{4}$ d) $\frac{1}{9}$

10. The total number of outcomes in the experiment of simultaneous throw of three dice is: **[1]**

     a) 6   b) 36

     c) 18   d) 216

11. A bag contains cards numbered from 1 to 25. A card is drawn at random from the bag. The probability that the number on this card is divisible by both 2 and 3 is **[1]**

     a) $\frac{3}{25}$ b) $\frac{1}{5}$

     c) $\frac{4}{25}$ d) $\frac{2}{25}$

12. A letter is chosen at random from the word ASSASSINATION. The probability that it is a vowel is **[1]**

     a) $\frac{7}{13}$ b) $\frac{6}{31}$

     c) $\frac{3}{13}$ d) $\frac{6}{13}$

13. In a cricket match, a batsman hits the boundary 7 times out of the 42 balls he plays. The probability of his **not** hitting a boundary is: **[1]**

     a) $\frac{5}{6}$ b) $\frac{1}{6}$

     c) $\frac{1}{7}$ d) $\frac{2}{7}$

14. A bag contains 5 black, 7 red and 3 white balls. A ball is drawn from the bag at random. The probability that the drawn ball is red, is : **[1]**

     a) $\frac{3}{15}$ b) $\frac{5}{15}$

     c) $\frac{1}{15}$ d) $\frac{7}{15}$

15. A piggy bank contains ₹ 1 coins and ₹ 2 coins in the ratio 9 : 11 respectively. The piggy bank is accidently dropped and a coin pops out of it. The probability that it is a ₹ 2 coin is **[1]**

     a) $\frac{9}{11}$ b) $\frac{1}{11}$

     c) 0.45   d) 0.55

16. A bag contains red balls and black balls in the ratio $3 : 7$. A ball is drawn at random. The probability that ball so drawn is black in colour, is **[1]**

     a) $\frac{3}{7}$ b) $\frac{1}{7}$

     c) 0.7   d) 0.3

17. Two coins are tossed simultaneously **[1]**

600 times to get 2 heads: 234 times, 1 head: 206 times, 0 head: 160 times.

If two coins are tossed at random, what is the probability of getting at least one head?

     a) $\frac{103}{300}$ b) $\frac{4}{15}$

c) $\frac{39}{100}$ d) $\frac{11}{15}$

18. A child has a block in the shape of a cube with one letter written on each face as shown in the following. **[1]**

A	A	B	A	C	D

The cube is thrown once. Then, the probability of getting 'A' is

    a) $\frac{1}{3}$ b) $\frac{1}{2}$

    c) 1   d) $\frac{1}{6}$

19. Aarushi sold 100 lottery tickets in which 5 tickets carry prizes. If Priya purchased a ticket, what is the probability of Priya winning a prize? **[1]**

    a) $\frac{17}{20}$ b) $\frac{1}{25}$

    c) $\frac{19}{20}$ d) $\frac{1}{20}$

20. When two dice are thrown, the probability of getting a number always greater than 4 on the second dice is _____. **[1]**

    a) $\frac{5}{36}$ b) $\frac{1}{3}$

    c) $\frac{1}{6}$ d) $\frac{1}{36}$

21. If for any event $E, P(E) + P(\bar{E}) = q$, then the value of $q^2 - 3$ is: **[1]**

    a) 0   b) 1

    c) -2   d) 2

22. A bag contains 3 red, 5 black and 7 white balls. A ball is drawn from the bag at random. The probability that the ball drawn is not black, is: **[1]**

    a) $\frac{5}{10}$ b) $\frac{2}{3}$

    c) $\frac{9}{15}$ d) $\frac{1}{3}$

23. An integer is chosen at random from the first 100 integers. Then, the probability that this number will not be divisible by 5 or 8 is **[1]**

    a) $\frac{7}{10}$ b) $\frac{1}{10}$

    c) $\frac{3}{10}$ d) $\frac{9}{10}$

24. Cards, each marked with one of the numbers 6,7,8 ,..., 15, are placed in a box and mixed thoroughly. One card is drawn at random from the box, What is the probability of getting a card with number less than 10 **[1]**

    a) $\frac{2}{5}$ b) $\frac{1}{3}$

    c) $\frac{1}{2}$ d) $\frac{3}{5}$

25. Three coins are tossed together. The probability of getting exactly one tail, is: **[1]**

    a) $\frac{7}{8}$ b) $\frac{1}{4}$

    c) $\frac{3}{8}$ d) $\frac{1}{8}$

26. A and B throw a pair of dice. If A throws 9, then B's chance of throwing a higher number is **[1]**

a) $\frac{1}{3}$ b) $\frac{1}{6}$

c) $\frac{1}{9}$ d) $\frac{2}{9}$

27. A die is thrown once. The probability of getting a number less than 6, is: **[1]**

     a) $\frac{5}{6}$ b) $\frac{1}{6}$

     c) 1   d) 0

28. A box contains 90 discs, numbered from 1 to 90. If one disc is drawn at random from the box, the **[1]** probability that it bears a prime number less than 23, is

     a) $\frac{9}{89}$ b) $\frac{4}{45}$

     c) $\frac{10}{90}$ d) $\frac{7}{90}$

29. In a family of 3 children, the probability of having at least one boy is **[1]**

     a) $\frac{5}{8}$ b) $\frac{1}{8}$

     c) $\frac{7}{8}$ d) $\frac{3}{4}$

30. Three coins are tossed together. The probability that at least one head comes up, is **[1]**

     a) $\frac{7}{8}$ b) $\frac{3}{4}$

     c) $\frac{3}{8}$ d) $\frac{1}{8}$

31. Two dice are thrown simultaneously. The probability that the sum of two numbers appearing on **[1]** the top of the dice is less than 12, is

     a) $\frac{1}{36}$ b) 1

     c) 0   d) $\frac{35}{36}$

32. The table given below shows the months of birth of 36 students of a class: **[1]**

Month of birth	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of students	4	3	5	0	1	6	1	3	4	3	4	2

A student is chosen at random from the class. What is the probability that the chosen student was born in October?

     a) $\frac{1}{12}$ b) $\frac{2}{3}$

     c) $\frac{1}{3}$ d) $\frac{1}{4}$

33. Two dice are rolled together. The probability of getting a doublet is: **[1]**

     a) $\frac{5}{6}$ b) $\frac{2}{36}$

     c) $\frac{1}{36}$ d) $\frac{1}{6}$

34. Probability that a leap year, selected at random will contain 53 Saturdays is: - **[1]**

     a) $\frac{7}{365}$ b) $\frac{53}{365}$

     c) $\frac{1}{7}$ d) $\frac{2}{7}$

35. 250 lottery tickets were sold and there are 5 prizes on these tickets. If Sahil has purchased one **[1]**

lottery ticket, what is the probability that he wins a prize?

a) $\frac{1}{50}$

b) $\frac{3}{50}$

c) $\frac{1}{125}$

d) $\frac{3}{125}$

36. A number is selected at random from the numbers 1 to 30. The probability that it is a prime number is **[1]**

a) $\frac{1}{6}$

b) $\frac{11}{30}$

c) $\frac{1}{3}$

d) $\frac{2}{3}$

37. One card is drawn at random from a well-shuffled deck of 52 cards. What is the probability of getting a 6? **[1]**

a) $\frac{1}{52}$

b) $\frac{3}{26}$

c) $\frac{1}{13}$

d) $\frac{4}{52}$

38. If the probability of happening of an event is $\frac{3}{7}$, then the probability of not happening of this event is: **[1]**

a) $\frac{4}{7}$

b) $\frac{2}{7}$

c) 0

d) 1

39. A card is selected from a deck of 52 cards. The probability of its being a red face card is **[1]**

a) $\frac{2}{12}$

b) $\frac{3}{26}$

c) $\frac{3}{13}$

d) $\frac{1}{2}$

40. If the probability of an event is 'p', the probability of its complementary event will be **[1]**

a) $1 - \frac{1}{p}$

b) p

c) p – 1

d) 1 – p

Section B

41. A lot consists of 48 mobile phones of which 42 are good, only 3 have minor defects and 3 have major defects. Varnika will buy a phone, if it is good, but the trader will only buy a mobile, if it has no major defect. One phone is selected at random from the lot. probability that it is **[2]**

 i. Acceptable to Varnika?

 ii. Acceptable to trader?

42. Following frequency distribution gives the weights of 40 students of a class. **[2]**

Weight (in kg)	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75
Number of students	10	6	14	4	1	1	2	1	1

A student from the class is chosen at random. What is the probability that the weight of the chosen student is not more than 50 kg?

43. A bag contains a red ball, a blue ball and a yellow ball, all the balls being of the same size. Kritika takes out a ball from the bag without looking into it. What is the probability that she takes out the **[2]**

 i. yellow ball?

 ii. red ball?

 iii. blue ball?

44. The probability of selecting a blue marble at random from a jar that contains only blue, black and green marbles is $\frac{1}{5}$. The probability of selecting a black marble at random from the same jar is $\frac{1}{4}$. If the jar contains 11 green marbles, find the total number of marbles in the jar. **[2]**

45. Following frequency distribution gives the weights of 40 students of a class. **[2]**

Weight (in kg)	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75
Number of students	10	6	14	4	1	1	2	1	1

A student from the class is chosen at random. What is the probability that the weight of the chosen student is at least 56 kg?

46. Three gamblers A, B and C bought a bag containing 8, 11 and 23 marbles of red, green and blue colours respectively. They do not know the exact number of marbles of each colour. What is the probability of not getting a green marble when one marble is taken out of the bag? The gamblers are betting for marbles of red, green and blue colours respectively. Who has the maximum probability of winning? **[2]**

47. A bag contains 4 white balls and some red balls. If the probability of drawing a white ball from the bag is $\frac{2}{5}$ find the number of red balls in the bag. **[2]**

48. A bag contains 15 balls, out of which some are white and the others are black. If the probability of drawing a black ball at random from the bag is $\frac{2}{3}$, then find how many white balls are there in the bag. **[2]**

49. Box A contains 25 slips of which 19 are marked Rs 1 and other are marked Rs 5 each. Box B contains 50 slips of which 45 are marked Rs 1 each and others are marked Rs 13 each. Slips of both boxes are poured into a third box and reshuffled. A slip is drawn at random. What is the probability that it is marked other than Rs 1? **[2]**

50. Bulbs are packed in cartons, each containing 40 bulbs. 700 cartons were examined for defective bulbs and the results are given in the following table: **[2]**

Number of defective bulbs	0	1	2	3	4	5	6	More than 6
Frequency (No. of cartons)	371	162	55	49	41	15	5	2

One carton is selected at random. What is the probability that it has no defective bulb?
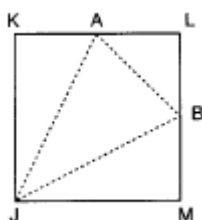
Section C

51. In a bag there are 44 identical cards with figure of circle or square on them. There are 24 circles, of which 9 are blue and rest are green and 20 squares of which 11 are blue and rest are green. One card is drawn from the bag at random. Find the probability that it has the figure of **[3]**

  i. square

  ii. green colour,

  iii. blue circle and

  iv. green square.

52. A box consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have major defects. Ramesh, a shopkeeper will buy only those shirts which are good but 'Kewal' another shopkeeper will not buy shirts with major defects. A shirt is taken out of the box at random. What is the probability that: **[3]**

  i. Ramesh will buy the selected shirt?

  ii. 'Kewal' will buy the selected shirt?

53. Two coins are tossed simultaneously. Find the probability of getting **[3]**

    i. exactly one head

    ii. at most one head

    iii. at least one head.

54. A box contains 6 blue, 4 white and 8 red marbles. A marble is drawn at random from this box. **[3]** Find the probability that the marble so drawn is:

    i. white

    ii. white or red

    iii. not red

55. A die is thrown twice. What is the probability that: **[3]**

    i. 5 will not come up either time?

    ii. 5 will come up at least once?

[**Hint:** Throwing a die twice and throwing two dice simultaneously are treated as the same experiment]

56. Peter throws two different dice together and finds the product of the two numbers obtained. **[3]** Rina throws a die and squares the number obtained. Who has the better chance to get the numbers 25?

57. 17 cards numbered 1, 2, 3, ..., 17 are put in a box and mixed thoroughly. One person draws a **[3]** card from the box. Find the probability that the number on the card is

    i. odd

    ii. a prime

    iii. divisible by 3

    iv. divisible by 3 and 2 both

58. A carton consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have major **[3]** defects. Jimmy, a trader, will only accept the shirts which are good, but Sujatha, 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

    i. it is acceptable to Jimmy?

    ii. it is acceptable to Sujatha?

59. A bag contains 24 balls out of which x are white. If one ball is drawn at random the probability of **[3]** 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.

60. In, JKLM is a square with sides of length 6 units. Points A and B are the mid-points of sides KL and **[3]** LM respectively. If a point is selected at random from the interior of the square. What is the probability that the point will be chosen from the interior of △JAB ?

Section D

61. From a deck of 52 playing cards, Jacks and kings of red colour and Queen and Aces of black colour are removed. The remaining cards are mixed and a card is drown at random. Find the probability that the drawn card is **[4]**

   i. A black Queen

   ii. A card of red colour

   iii. A Jack of black colour

   iv. A face card

62. Two different dice are thrown together. Find the probability that the numbers obtained have **[4]**

   i. even sum

   ii. even product.

63. The weekly pocket expenses of students are given below: **[4]**

POCKET EXPENSES (in Rs.)	45	40	59	71	58	47	65
NO. OF STUDENTS	7	4	10	6	3	8	1

Find the probability that the weekly pocket expenses of a student are

(a) (i) ₹59

(ii) more than ₹ 59

(iii) less than ₹ 59

(b) Find the sum of probabilities computed in (i), (ii), and (iii)

64. The king, queen and jack of clubs are removed from a deck of 52 cards. The remaining cards are mixed together and then a card is drawn at random from it. Find the probability of getting (i) a face card, (ii) a card of heart, (iii) a card of clubs (iv) a queen of diamond. **[4]**

65. A bag contains 4 white balls, 6 red balls, 7 black balls and 3 blue balls. One ball is drawn at random from the bag. Find the probability that the ball drawn is **[4]**

   i. white

   ii. not black

   iii. neither white nor black

   iv. red or white.

66. The houses in a row are numbered consecutively from 1 to 49. Show that there exists a value of X such that sum **[4]**

of numbers of houses proceeding the house numbered X is equal to sum of the numbers of houses following X.

67. A circular target of radius 11 cm consists of an inner circle of radius 5 cm and 3 concentric circles of radii 7 cm, 9 cm and 10 cm dividing the target into 4 regions. If a shot hits the target, find the probabilities of hitting each region. If you shoot the target 121 times, what is your expectation? How will you improve your performance? **[4]**

68. The central Board of secondary education has a waiting list of examinations of 150 Persons. Out of these, 60 are women and 90 are men. One examiner is to selected to replace an examiner who has not reported at the centre find the probability that the examiner selected is a: **[4]**

(i) woman

(ii) man

69. Two customers Shyam and Ekta are visiting a particular shop in the same week (Tuesday to **[4]**

Saturday). Each is equally likely to visit the shop on any day as on another day. What is the probability that both will visit the shop on (i) the same day? (ii) consecutive days? (iii) different days?

70. A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is : **[4]**

   i. a card of a spade or an ace.

   ii. a black king.

  iii. neither a jack nor a king.

  iv. either a king or a queen

71. **Read the case study based questions carefully and answer any four out of the following:** **[4]**

Pawan goes to a fete in Mussoorie. There he saw a game having prizes - wall clocks, power banks, puppets and water bottles. The game consists of a box having cards inside it, bearing the numbers 1 to 200, one on each card. A person has to select a card at random. Now, the winning of prizes has the following conditions:

Wall clock - If the number on the selected card is a perfect square.

Power bank - If the number on the selected card is multiple of 3.

Puppet - If the number on selected card is divisible by 10.

Water bottle - If the number on the selected card is a prime number more than 100 but less than 150.

Better luck next time - If the number on the selected card is a perfect cube.

  i. Find the probability of winning a puppet.

    a. $\frac{1}{5}$

    b. $\frac{1}{8}$

    c. $\frac{1}{10}$

    d. $\frac{2}{15}$

  ii. The probability of winning a water bottle is

    a. $\frac{1}{18}$

    b. $\frac{1}{19}$

    c. $\frac{1}{20}$

    d. $\frac{1}{16}$

 iii. The probability of winning a power bank is

    a. $\frac{3}{10}$

    b. $\frac{11}{50}$

    c. $\frac{33}{100}$

    d. $\frac{1}{8}$

 iv. The probability of winning a wall clock is

    a. $\frac{7}{100}$

b. $\frac{51}{100}$

c. $\frac{19}{100}$

d. $\frac{27}{100}$

v. The probability of getting Better Luck next time is

  a. $\frac{1}{40}$

  b. $\frac{1}{80}$

  c. $\frac{1}{20}$

  d. $\frac{1}{60}$

72. **Read the case study based questions carefully and answer any four out of the following:** **[4]**

Two friends were playing a game with two dice. Pawan has a blue dice and Govind has a grey dice. They decided to throw both the dice simultaneously and note down all the possible outcomes appearing on the top of both the dice.

On the basis of above information, answer the following questions.

  i. The total number of possible outcomes they noted, is

    a. 24

    b. 36

    c. 18

    d. 6

  ii. The probability of getting the sum of numbers on two dice is 16, is

    a. 1

    b. $\frac{5}{36}$

    c. 0

    d. $\frac{18}{35}$

  iii. The probability that both the numbers are prime numbers, is

    a. 0

    b. $\frac{1}{2}$

    c. $\frac{1}{4}$

    d. $\frac{1}{8}$

  iv. The probability that product of two numbers is odd, is

    a. 1

    b. $\frac{1}{2}$

    c. $\frac{1}{4}$

    d. $\frac{1}{8}$

  v. The probability that difference between numbers is zero, is

    a. $\frac{1}{2}$

    b. $\frac{1}{4}$

c. $\frac{1}{6}$

d. $\frac{1}{8}$

73. **Read the case study based questions carefully and answer any four out of the following:** **[4]**

Four friends are playing with cards. One of them hides all the 2's, 5's and Jack's from the deck of 52 cards and then shuffles the remaining cards. Now, he tells to one of his friend to pick a card at random from the remaining cards.

On the basis of above information, answer the following questions,

i. The probability of getting 6 of spade is

a. 0

b. $\frac{1}{20}$

c. $\frac{1}{40}$

d. 1

ii. The probability of getting a black diamond is

a. 0

b. 1

c. $\frac{1}{2}$

d. $\frac{1}{4}$

iii. The probability of getting a face card is

a. $\frac{1}{3}$

b. $\frac{1}{5}$

c. $\frac{1}{7}$

d. $\frac{1}{9}$

iv. The probability of getting a club is

a. 0

b. 1

c. $\frac{1}{2}$

d. $\frac{1}{4}$

v. The probability of getting a red card is

a. 0

b. 1

c. $\frac{1}{2}$

d. $\frac{1}{4}$

74. **Read the case study based questions carefully and answer any four out of the following:** **[4]**

Shiv goes to a store to purchase juice cartons for his shop. The store has 80 cartons of orange juice, 90 cartons of apple juice, 38 cartons of mango juice and 42 cartons of guava juice. If Vishal

chooses a carton at random, then answer the following questions.

i. The probability that the selected carton is of apple juice is

a. $\frac{1}{25}$

b. $\frac{8}{25}$

c. $\frac{13}{25}$

d. $\frac{9}{25}$

ii. The probability that the selected carton is not of orange juice is

a. $\frac{14}{25}$

b. $\frac{11}{25}$

c. $\frac{17}{25}$

d. $\frac{4}{25}$

iii. The probability of selecting a carton of guava juice is

a. $\frac{51}{125}$

b. $\frac{16}{125}$

c. 0

d. $\frac{21}{125}$

iv. Shiv buys 4 cartons of apple juice, 3 cartons of orange juice and 3 cartons of guava juice. A customer comes to Shiv's shop and picks a tetrapack of juice at random. The probability that the customer picks a guava juice, if each carton has 10 tetrapacks of juice, is
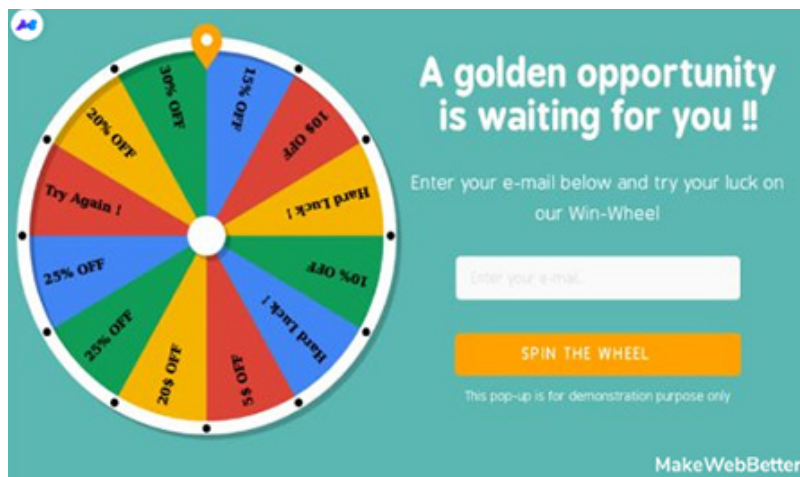
a. $\frac{1}{10}$

b. $\frac{2}{10}$

c. $\frac{3}{10}$

d. $\frac{2}{5}$

v. If the storekeeper bought 14 more cartons of apple juice, then the probability of selecting a tetrapack of apple juice from the store is
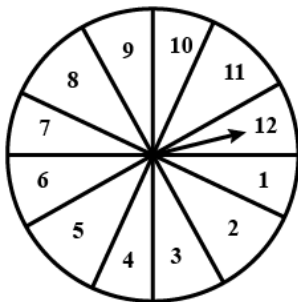
a. $\frac{25}{127}$

b. $\frac{50}{127}$

c. $\frac{75}{127}$

d. $\frac{100}{127}$

75. **Read the case study and answer any four out of the following questions:** [4]

A company decides to increase its sales by using a game of discount on a random basis. The game of chance consists of spinning an arrow which is equally likely to come to rest pointing to one of the numbers 1,2,3,.....12 as shown in Fig. Discount percent on each number is different. The conditions for the discount is given below:

If the pointer points to:

1: it means 15%off

2 or 4: it means 10%off

3 or 5: it means Hard luck

6: it means 5% off

7 or 11: it means 20% off

8 or 9: it means 25% off

10: Hard luck

12: it means 30% off

i. What is the probability that customer get 30% off?

   a. $\frac{1}{12}$
   b. $\frac{3}{12}$
   c. $\frac{12}{12}$ i.e. 1
   d. $\frac{3}{100}$

ii. What is the probability that the pointer will point to an odd number?

   a. 1
   b. $\frac{12}{6}$
   c. $\frac{1}{2}$
   d. $\frac{1}{6}$

iii. What is the probability that customer get 10%off?

   a. $\frac{1}{2}$
   b. $\frac{1}{6}$

c. 1

d. $\frac{1}{12}$

iv. What is the probability that it will point to a number which is a multiple of 3?

    a. $\frac{1}{6}$

    b. $\frac{1}{12}$

    c. $\frac{1}{3}$

    d. $\frac{1}{2}$

v. What is the probability that it will point to a prime number?

    a. $\frac{1}{2}$

    b. $\frac{1}{12}$

    c. $\frac{5}{12}$

    d. $\frac{1}{5}$

vi. Find the probability that the pointer will point at Hard luck

    a. $\frac{1}{5}$

    b. $\frac{2}{12}$

    c. $\frac{1}{12}$

    d. $\frac{3}{12}$