DEVESH TEDIA CLASSES

Above muthoot finance bank, awadhpuri, bhopal

WORKSHEET - DATA HANDLING
Class 08 - Mathematics

### Section A

1. The probability of getting not more than 7 in rolling of a dice is   **[1]**

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

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

2. In a survey of 200 ladies, it was found that 82 like coffee while 118 dislike it. From these ladies,   **[1]**
   one is chosen at random. The probability that the chosen lady dislike coffee is

   a) $\frac{59}{100}$ b) $\frac{100}{59}$

   c) $\frac{100}{41}$ d) $\frac{41}{100}$

3. When a die is thrown, what is the probability of getting an even number?   **[1]**

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

   c) $\frac{1}{2}$ d) 0

4. Two dice are thrown together, what is the probability that the sum of the numbers on the two   **[1]**
   faces is divisible by 4 or 6 ?

   a) $\frac{7}{18}$ b) $\frac{5}{18}$

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

5. The table shows the number of cups of four different beverages sold by a coffee shop in a certain   **[1]**
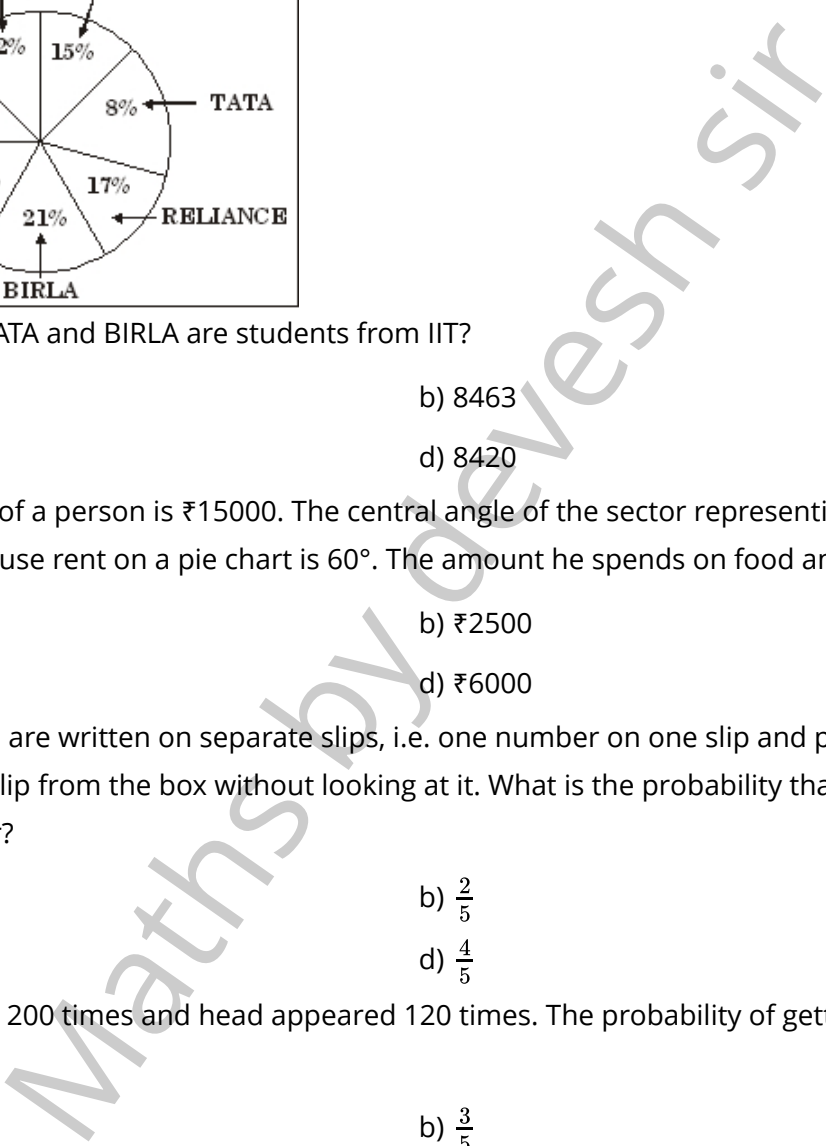   day. The angle of sector in a pie chart representing tea is:

Beverage	Number of cups
Coffee	60
Tea	75
Hot chocolate	25
Milk	40

   a) 72º   b) 40º

   c) 135º   d) 108º

6. The probability that a student passes in Mathematics is $\frac{4}{9}$ and he passes in physics in $\frac{2}{5}$.   **[1]**
   Assuming that passing in Mathematics and Physics are independent of each other, what is the
   probability that he passes in Mathematics and fails in Physics?

   a) $\frac{4}{15}$ b) $\frac{26}{45}$

   c) $\frac{8}{45}$ d) $\frac{19}{45}$

7. The pie chart shows the examination grades obtained by a group of students. Which of the following statements about the pie chart is true? **[1]**
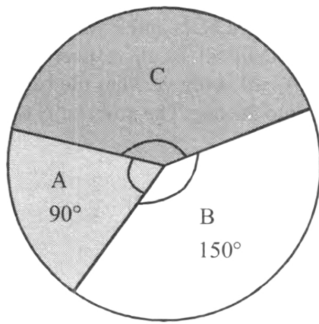
a) $\frac{1}{4}$ of the students scored grade B

b) $\frac{1}{3}$ of the students scored grade C

c) 15% of the students scored grade B

d) 90% of the students scored grade A

8. A card is drawn at random from a pack of 52 cards. Find the probability that the card drawn is a black card **[1]**

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

b) $\frac{1}{26}$

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

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

9. Data collected in a survey shows that 40% of the buyers are interested in buying a particular brand of toothpaste. The central angle of the sector of the pie chart representing this information is: **[1]**

a) 150º

b) 40º

c) 144º

d) 120º

10. Which of the following is not a random experiment? **[1]**

a) Rolling a die

b) Throwing a stone from the roof of a building

c) Choosing a card from a deck of 52 cards

d) Tossing a coin

11. What is the probability of choosing a vowel from the alphabets? **[1]**

a) $\frac{1}{26}$

b) $\frac{10}{26}$

c) $\frac{5}{26}$

d) $\frac{21}{26}$

12. Total number of outcomes, when a ball is drawn from a bag which contains 3 red, 5 black and 4 blue balls is **[1]**

a) 12

b) 8

c) 9

d) 7

13. The following pie-charts show the distribution of students of IIT's and IIM's in seven different companies TCS, WIPRO, SATYAM, INFOSYS, TATA, RELIANCE and BIRLA. **[1]**

Total students from IIT = 27300

Total students from IIM = 24700

How many of TATA and BIRLA are students from IIT?

a) 4641

b) 8463

c) 3822

d) 8420

14. Monthly salary of a person is ₹15000. The central angle of the sector representing his expenses on food and house rent on a pie chart is 60°. The amount he spends on food and house rent, is: **[1]**

a) ₹5000

b) ₹2500

c) ₹9000

d) ₹6000

15. Numbers 1 to 5 are written on separate slips, i.e. one number on one slip and put in a box. Wahida pick a slip from the box without looking at it. What is the probability that the slip bears an odd number? **[1]**

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

b) $\frac{2}{5}$

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

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

16. A coin is tossed 200 times and head appeared 120 times. The probability of getting a head in this experiment is: **[1]**

a) $\frac{2}{5}$

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

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

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

17. A bag has 4 red balls and 6 yellow balls. A ball is drawn from the bag without looking into the bag. Find the probability of getting a yellow ball. **[1]**

a) $\frac{4}{5}$

b) $\frac{2}{5}$

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

d) $\frac{3}{5}$

18. A geometric representation showing the relationship between a whole and its parts, is a **[1]**

a) pie chart

b) pictograph

c) bar graph   d) histogram

19. A card is drawn at random from a pack of 52 cards. Find the probability that the card is drawn is a **[1]**
     red king.

   a) $\frac{1}{52}$ b) $\frac{1}{2}$

   c) $\frac{1}{13}$ d) $\frac{1}{26}$

20. A bag has 4 red balls and 2 yellow balls (The balls are identical in all respect other than colour). A **[1]**
     ball is drawn from the bag without looking into the bag. The probability of getting a red ball is
     _____.

   a) $\frac{2}{3}$ b) $\frac{1}{4}$

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

21. When a die is thrown, what is the probability of getting a number greater than 3? **[1]**

   a) 0   b) 1

   c) $\frac{1}{4}$ d) $\frac{1}{2}$

22. Two coins are tossed simultaneously. What is the probability of getting one head and one tail? **[1]**

   a) $\frac{2}{3}$ b) $\frac{1}{4}$

   c) $\frac{3}{4}$ d) $\frac{1}{2}$

23. In a pie chart, the central angle for a component value of 320 when the total value is 1440, is **[1]**
     _____.

   a) 90º   b) 75º

   c) 85º   d) 80º

24. A survey of 300 people found that 30 of them play cricket. In a pie chart, what would be the **[1]**
     sector angle of this group?

   a) 30º   b) 20º

   c) 36º   d) 10º

25. From a well-shuffled deck of 52 cards, one card is drawn at random. What is the probability that **[1]**
     the drawn card is a queen?

   a) $\frac{1}{13}$ b) $\frac{1}{52}$

   c) $\frac{1}{26}$ d) $\frac{1}{4}$

26. In a pie chart, the total angle at the centre of the circle is: **[1]**

   a) 270°   b) 180°

   c) 90°   d) 360°

27. A coin is tossed two times. The number of possible outcomes is **[1]**

   a) 4   b) 2

   c) 1   d) 3

28. When a die is thrown, what is the probability of getting the number 7? **[1]**

a) 0
b) 1

c) $\frac{1}{2}$
d) $\frac{1}{4}$

29. When a die is thrown, what are the six possible outcomes? **[1]**

   a) 1, 2, 3, 4
   b) 0, 1, 2, 3, 4, 5, 6

   c) 1, 2, 3, 4, 5, 6
   d) T, H

30. A coin is tossed three times. The number of possible outcomes is: **[1]**

   a) 6
   b) 3

   c) 4
   d) 8

31. **Assertion (A):** The Probability of an event always lies between 0 and 1. **[1]**
   Reason (R): $0 \le P(E) \le 1$ is correct.

   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.

   c) A is true but R is false.
   d) A is false but R is true.

32. **Assertion (A):** The measure of all the angles at the centre of the circle is 360°. **[1]**
   Reason (R): If the information given in the bar graph is shown in a single circle, it is called a pie graph.

   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.

   c) A is true but R is false.
   d) A is false but R is true.

33. **Assertion (A):** A letter of English alphabet is chosen at random. The probability that the letter chosen is a vowel is $\frac{5}{26}$. **[1]**
   Reason (R): Vowels are a, e, I, o, u.

   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.

   c) A is true but R is false.
   d) A is false but R is true.

34. **Assertion (A):** Probability is the measure of how likely something will occur. **[1]**
   Reason (R): It is the ratio of desired outcomes to total outcomes.

   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.

   c) A is true but R is false.
   d) A is false but R is true.

35. **Assertion (A):** Probabilities of all outcomes sum to 0. **[1]**
   Reason (R): The collection of outcomes makes an event.

   a) Both A and R are true and R is the correct explanation of A.
   b) Both A and R are true but R is not the correct explanation of A.

   c) A is true but R is false.
   d) A is false but R is true.

36. A glass jar contains 6 red, 5 green, 4 blue and 5 yellow marbles of the same size. Hari takes out a marble from the jar at random. What is the probability that the chosen marble is of red colour? **[1]**
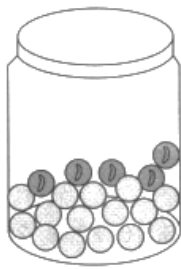
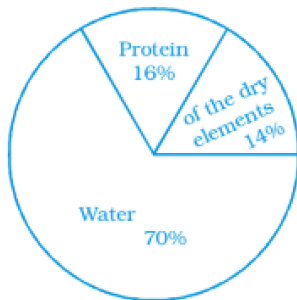a) $\frac{3}{10}$ b) $\frac{2}{5}$

c) $\frac{4}{5}$ d) $\frac{7}{10}$

37. The following pie chart gives the distribution of constituents in the human body. The central angle of the sector showing the distribution of protein and other constituents is: **[1]**
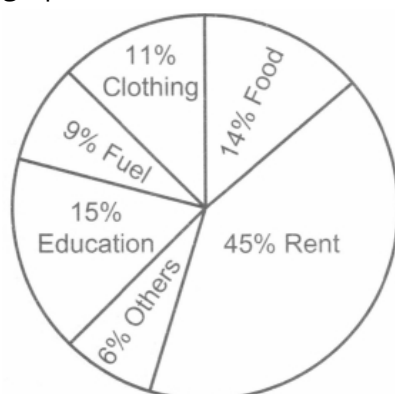

a) 30⁰   b) 216⁰

c) 108⁰   d) 54⁰

38. The given pie chart shows the spending of a family on various heads during a month. Study the graph and answer the following question.   **[1]**

If the total income of the family is ₹ 25000, then the amount spent on food and rent together is
_____.

a) ₹ 14750   b) ₹ 17250

c) ₹ 11250   d) ₹ 8500

Section B

39. A die is rolled once. What is the probability that the number on top will be odd. (Decimal value)   **[2]**

40. A survey was carried out to find the favourite beverage preferred by a certain group of young people. The following pie chart shows the findings of this survey.   **[2]**

If 45 people like tea, how many people were surveyed?

41. A dice is rolled. Find the probability of the event that a number not greater than 5 **[2]**

42. A dice is rolled. Find the probability of the event, not a prime number. **[2]**

43. Playing cards **[2]**

a. From a pack of cards, the following cards are kept face down:
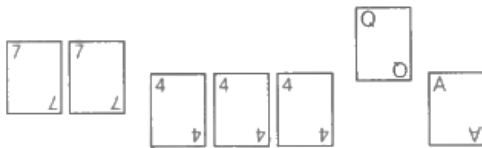
Suhail wins if he picks up a face card. Find the probability of Suhail winning?

b. Now, the following cards are added to the above cards:
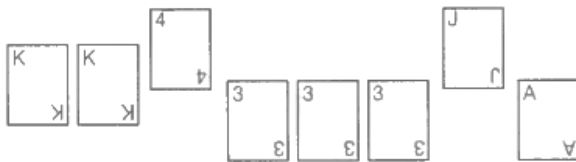
What is the probability of Suhail winning now? Reshma wins if she picks up a 4. What is the probability of Reshma winning? [Queen, King and Jack cards are called face cards.]

44. Classify the following events as certain, equally like, may or may not happen, impossible **[2]**

a. The sun will not rise on Sunday.

b. There will be 29th February in 2018.

45. What is the probability that a student chosen at random out of 3 girls and 4 boys is a boy? **[2]**

46. Following is a pie chart showing the amount spent (in ₹ thousands) by a company on various modes of advertising for a product. Now, answer the following questions: **[2]**

a. Which type of media advertising is of the greatest amount of total?

b. Which type of media advertising is of the least amount of total?
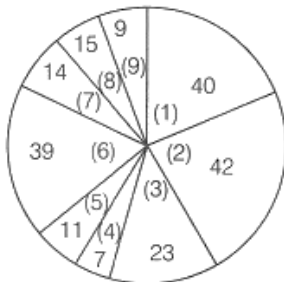
The numbers 1-9 in the pie-chart represent:

1. Television

2. Newspaper

3. Magazines

4. Radio

5. Business papers

6. Direct mail

7. Yellow page

8. Outdoor

9. Miscellaneous

47. In a store, 50 pairs of bangles are on display. The probability that a customer will choose a pair of pearl bangles is $\frac{6}{25}$. How many pearl bangles are on display? **[2]**

48. Ritwik draws a ball from a bag that contains white and yellow balls. The probability of choosing a white ball is $\frac{2}{9}$. If the total number of balls in the bag is 36, then find the number of yellow balls. **[2]**

49. If 23% of the people in a locality prefer fresh juice, what would be the central angle representing this data? **[2]**

50. A die is rolled once. What is the probability that the number on top will be **[2]**

   a. odd

   b. greater than 5

   c. a multiple of 3

   d. less than 1

   e. A factor of 36

   f. A factor of 6

Section C

51. Draw a pie chart for the given data showing the favourite subject of students at a school. **[3]**

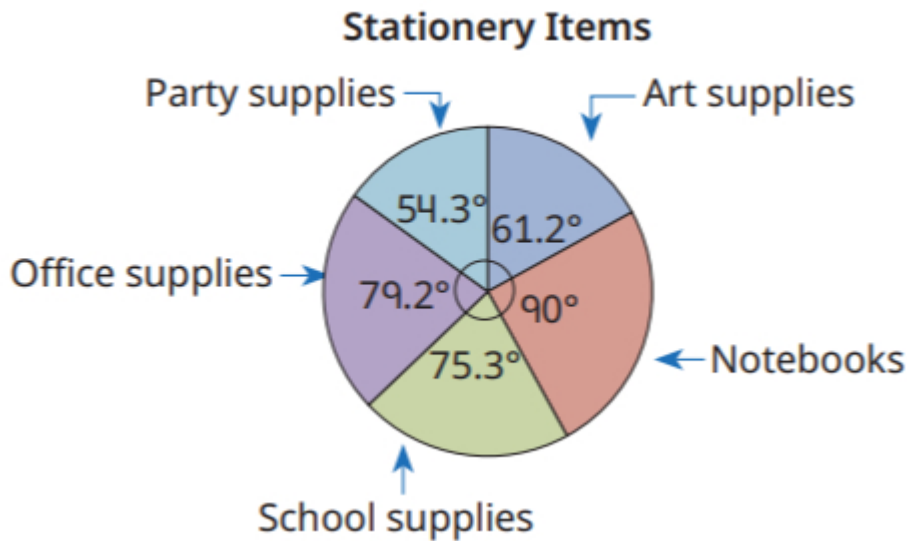| Subject	Maths	English	French	Science	Others
No. of students	595	420	225	385	175

52. At a birthday party, the children spin a wheel to get a gift. **[3]**
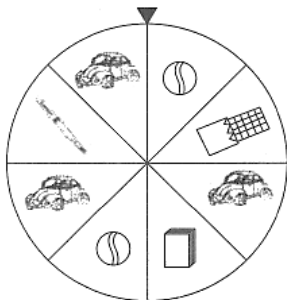
Find the probability of:

   a. getting a ball

   b. getting a toy car

   c. getting any toy except a chocolate

53. The pie chart shows the sales at a stationery shop in a month. **[3]**

Stationery Items

a Which is the most popular item in the store?

b What is the fraction of the notebooks sold in the month?

c What is the percentage of the party supplies sold at the shop?

54. Identify which symbol should appear in each sector of the given pie chart. **[3]**
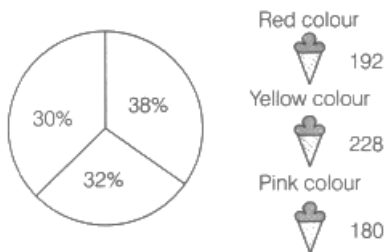
55. Adjoining pie chart figure gives the expenditure (in percentage) on various items and savings of a **[3]** family during a month.

   i. On which item, the expenditure is maximum?

  ii. Expenditure on which item is equal to the total savings of the family?

 iii. If the monthly savings of the family is ₹3000, what is the monthly expenditure on clothes?
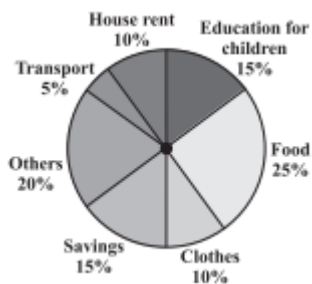
56. A group of 360 people were asked to vote for their favourite season from the three seasons **[3]** rainy, winter and summer.
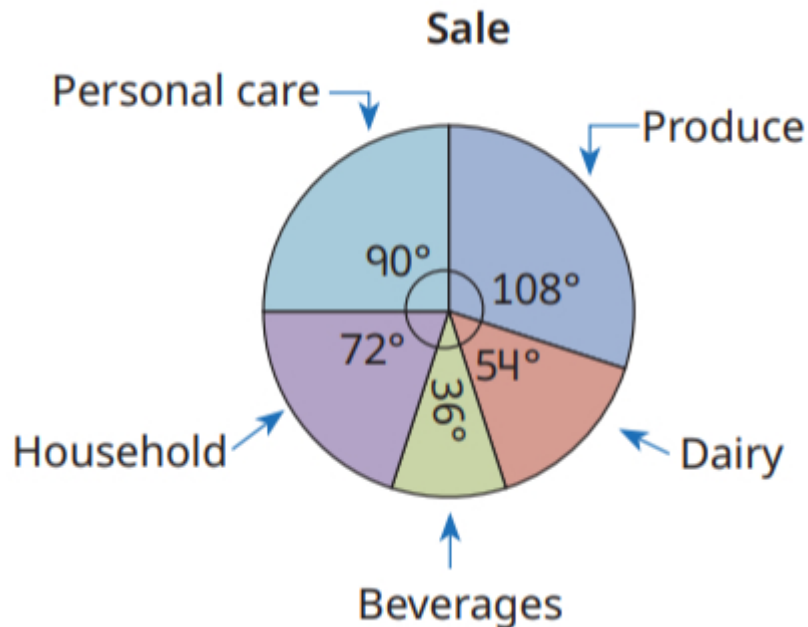
Season	No. of votes
Summer	90
Rainy	120
Winter	150

Draw a pie chart to show this information.

57. Identify which symbol should appear in each sector of the pie chart.   **[3]**

☁	800
◇	700
✚	550
✡	450
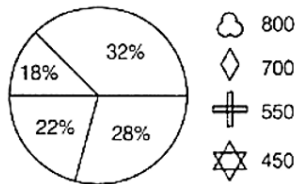
58. Read the pie chart showing the sale of various products at a supermarket and answer the   **[3]**
     questions if the total sales add up to ₹1,00,000.

Sale

a What was the percentage of the sales of household items?

b   What was the sales value of the most popular product?

c What was the total percentage of the sales for the two least popular products?

59. A letter of English alphabet is chosen at random. Find the probability that the letter chosen is a   **[3]**
     vowel.

60. A group of 360 people were asked to vote for their favourite season from the three seasons   **[3]**
     rainy, winter and summer.

Season	No. of votes
Summer	90
Rainy	120
Winter	150

Find the central angle of each sector?

Section D

Question No. 61 to 65 are based on the given text. Read the text carefully and answer the   **[5]**
questions:

Ajay and Vijay are playing with a well shuffled deck of 52 playing cards. Vijay and Ajay alternately select
a card randomly. Then tries to find probability of a card selected.

61. Probability of selecting red card is _____

62. Find the probability of getting a queen?

    a) $\frac{1}{4}$ b) $\frac{1}{13}$

    c) $\frac{1}{26}$ d) $\frac{1}{2}$

63. Find the probability of getting a black king card?

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

    c) $\frac{1}{4}$ d) $\frac{1}{26}$

64. Find the probability of getting an ace?

    a) $\frac{1}{3}$ b) $\frac{1}{13}$

    c) $\frac{1}{4}$ d) $\frac{1}{26}$

65. The probability of getting a card of diamond is $\frac{1}{4}$.

    a) True   b) False

Question No. 66 to 70 are based on the given text. Read the text carefully and answer the   **[5]**
questions:

The below pie chart gives the marks scored in an examination by a student in Hindi, English, Mathematics, Social Science and Science. If the total marks obtained by the student is 540, answer the following questions.
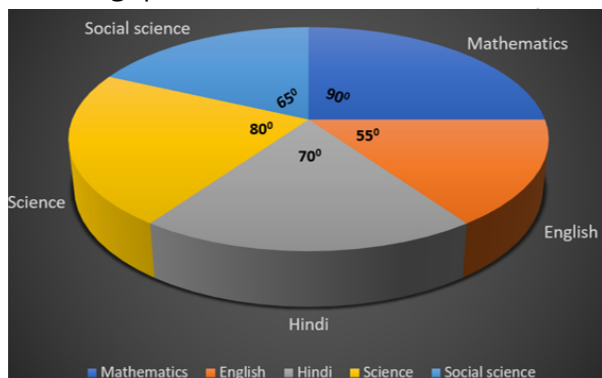
66. Marks scored by student in science is _____.

67. In which subject did the student score 105 marks?

    a) Mathematics   b) Hindi

    c) English   d) Science

68. How many marks he scored in Mathematics?

    a) 125   b) 135

    c) 140   d) 90

69. How many more marks were obtained by the student in Mathematics than in Hindi?
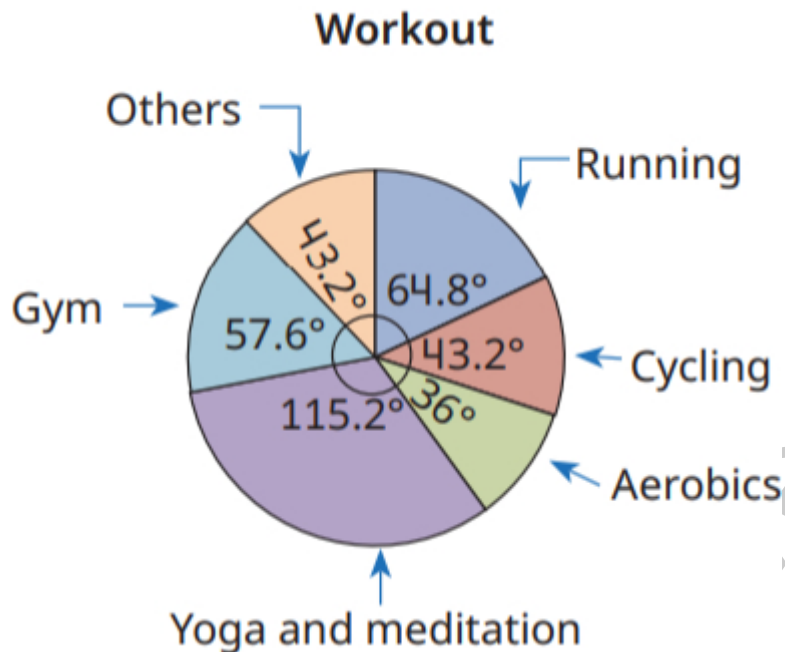
a) 30   b) 40

c) 35   d) 25

70. The sum of the marks obtained in Social Science and Mathematics is more than that in Science and Hindi.

a) True   b) False

71.   The pie chart shows the types of workouts preferred by the people in a society.   **[5]**

a If 150 people prefer aerobics, then what percentage of the people prefer running?

b What is the ratio of people who prefer cycling to those who do not prefer going to the gym?

c What percentage of the people do not prefer yoga and meditation?

72.   A survey was made to find the type of music that a certain group of young people liked in a city.   **[5]**
The adjoining pie chart shows the findings of this survey.
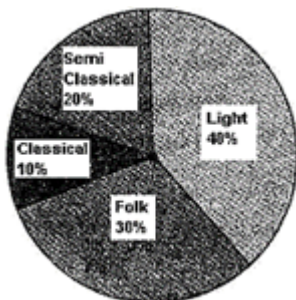
From this pie chart answer the following:

 i. If 20 people liked classical music, how many young people were surveyed?

 ii. Which type of music is liked by the maximum number of people?

 iii. If a cassette company were to make 1000 CD's, how many of each type would they make?

73.   In a district, the number of branches of different banks is given below: **[5]**

Bank	State Bank of India	Bank of Baroda	Punjab National Bank	Canara Bank
Number of branches	30	17	15	10

Draw a pie chart for this data.

74. In the time table of a school, periods allotted per week to different teaching subjects are given below. **[5]**

Subject	Hindi	English	Maths	Science	Social Science	Computer	Sanskrit
Periods allotted	7	8	8	8	7	4	3

Draw a pie chart for this data.

75. Draw a pie chart showing the following information. The table shows the colours preferred by a group of people. **[5]**

Colours	Number of people
Blue	18
Green	9
Red	6
Yellow	3
Total	36

Find the proportion of each sector. For example, Blue is $\frac{18}{36} = \frac{1}{2}$; Green is $\frac{9}{36} = \frac{1}{4}$ and so on. Use this to find the corresponding angle.