MATHS

BOOKS - NCERT EXEMPLAR

DATA HANDLING

Solved Example

1. The range of the data 9, 8, 4, 3, 2, 1, 6, 4, 8, 10, 12, 15, 4, 3 is

A. 15

B. 14

C. 12

D. 10

Answer: B

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2. The following data : 2, 5, 15, 25, 20, 12, 8, 7, 6, 16, 21,17, 30, 32, 23, 40, 51, 15, 2, 9, 57, 19, 25 is grouped in the classes 0 –5, 5 –10, 10 –15 etc. Find the frequency of the class 20 –25.

A. 5

B. 4

C. 3

D. 2

Answer: C

3. The pie chart depicts the information of viewers watching different type of channels on TV. Which type of programmes are viewed the most?
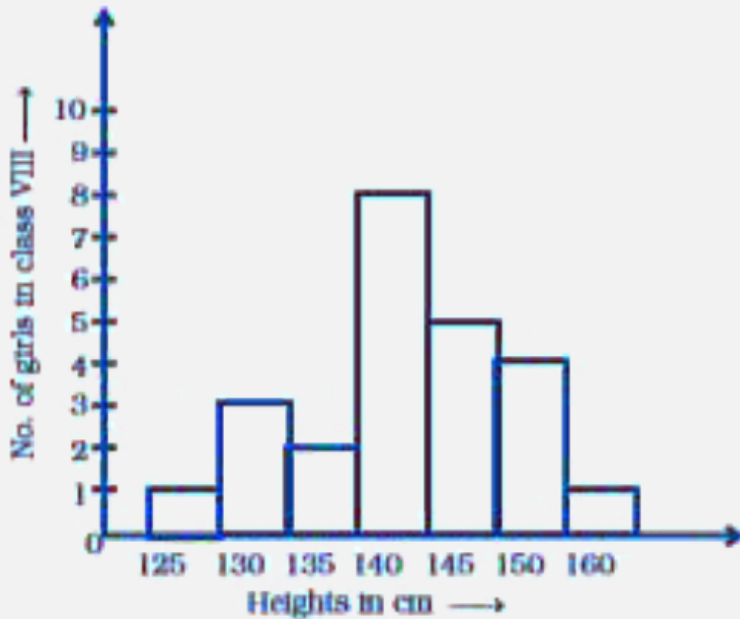
Pie chart showing: News 15%, Informative 10%, Sports 25%, Entertainment 50%

A. News

B. Sports

C. Entertainment

D. Informative.

Answer: C

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4.

Observe the histogram given above. The number of girls having height 145 cm and above is

A. 5

B. 10

C. 17

D. 19

Answer: B

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5. A dice is thrown two times and sum of the numbers appearing on the dice are noted. The number of possible outcomes is

A. 6

B. 11

C. 18

D. 36

Answer: B

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6. The probability of getting a multiple of 2 when a dice is rolled is

A. $\dfrac{1}{6}$

B. $\dfrac{1}{3}$

C. $\dfrac{1}{2}$

D. $\dfrac{2}{3}$

Answer: C

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7. The fourth class interval for a grouped data whose first and second class intervals are 10 -15 and 15 -20 respectively is _____

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8. In the class interval 250 - 275, 250 is known as the _____.

A. Middle class limit.

B. Lower class limit.

C. Upper class limit.

D. None

Answer: B

9. The number of times a particular observation occurs in the given data is called its

A. Range

B. Class mark

C. Frequency

D. None

Answer: C

10. The central angle of the sectors in a pie chart will be a fraction of $360°$

11. On throwing a dice, the probability of occurrence of an odd number is 5. True or false.

12. Pictographs

13. The weekly wages (in Rs.) of 30 workers in a factory are give:

830,835,890,810,835,836,869,845,898,890,

820,860,832,833,855,845,804,808,812,,840,885,835,835,836,878,840,868,890,806,84

Mark a frequency table with intervals as 800-810, 810-820 and so on, using tally marks. Also, draw a histogram and answer the following questions: Which group has the maximum number of workers? How many workers earn Rs. 850 and more? How many workers earn less than Rs. 850?

14. The pie chart gives the marks scored in an examination by a student in different subjects. If the total marks obtained were 540, answer the following questions
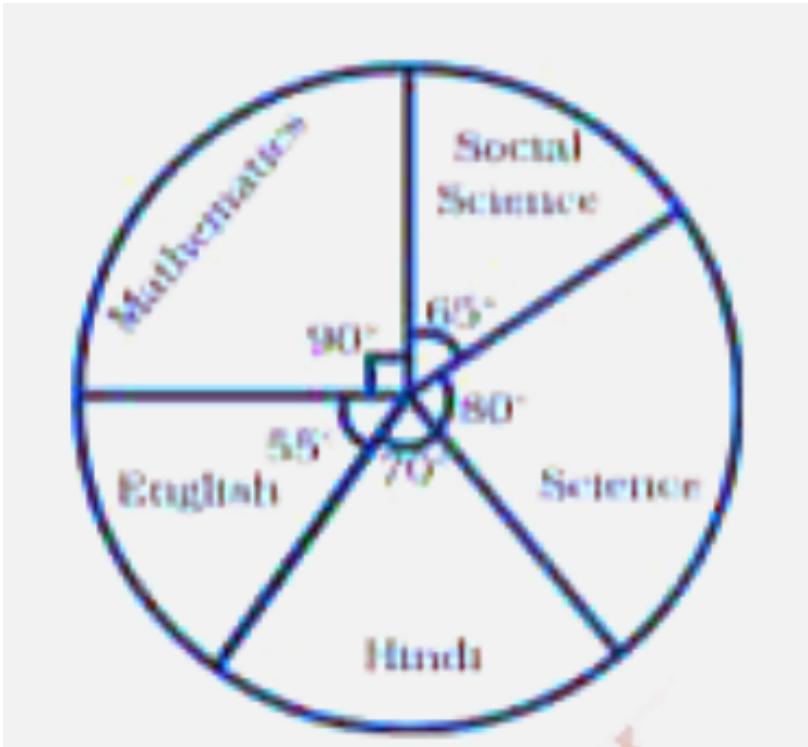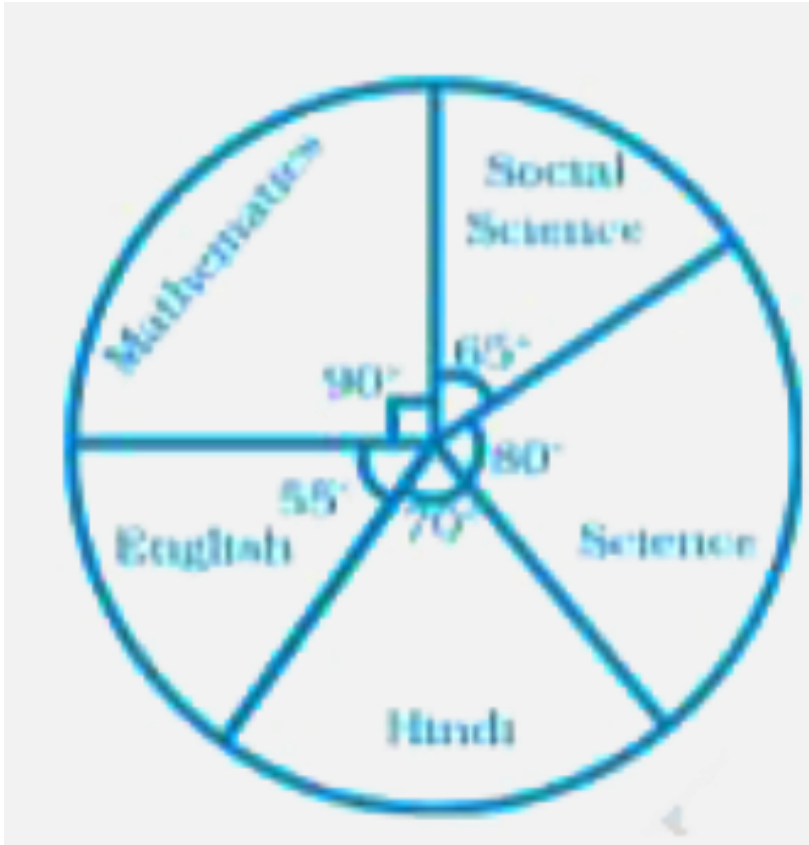

In which subject did the student score 105 marks?

15. The pie chart gives the marks scored in an examination by a student in different subjects. If the total marks obtained were 540, answer the following questions

How many more marks were obtained by the student in Mathematics than in Hindi?

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16. Draw a pie chart for the given data.

Favourite food	Number of people
North Indian	30
South Indian	40
Chinese	25
Others	25

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17. Draw a histogram for the frequency distribution table given in Example 13 and statement of Example 13 is given by as-

The weekly wages (in Rs.) of 30 workers in a factory are 830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840. Using tally marks, make a frequency distribution table with class intervals 800 – 810, 810 – 820 and so on. Answer the following questions

Which class interval has the maximum number of workers?

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18. Draw a histogram for the frequency distribution table given in Example 13 and statement of Example 13 is given by as-

The weekly wages (in Rs.) of 30 workers in a factory are 830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840. Using tally marks, make a frequency distribution table with class intervals 800 – 810, 810 – 820 and so on. Answer the following questions.

How many workers earn Rs. 850 and more?

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19. Draw a histogram for the frequency distribution table given in Example 13 and statement of Example 13 is given by

The weekly wages (in Rs.) of 30 workers in a factory are 830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840. Using tally marks, make a frequency distribution table with class intervals 800 – 810, 810 – 820 and so on

Answer the following questions.

How many workers earn less than Rs. 850?

20. Draw a histogram for the frequency distribution table given in Example 13 as

(Data: 830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840) and answer the following questions.

How many workers earn Rs. 820 or more but less than Rs. 880?

21. Read the frequency distribution table given below and answer the questions that follow:

Class Interval	Frequency
25 – 35	1
35 – 45	5
45 – 55	5
55 – 65	4
65 – 75	0
75 – 85	8
85 – 95	2
Total	25

Class interval which has the lowest frequency.

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22. Read the frequency distribution table given below and answer the questions that follow:

Class Interval	Frequency
25 – 35	1
35 – 45	5
45 – 55	5
55 – 65	4
65 – 75	0
75 – 85	8
85 – 95	2
Total	25

Class interval which has the highest frequency.

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23. Read the frequency distribution table given below and answer the questions that follow:

Class Interval	Frequency
25 – 35	1
35 – 45	5
45 – 55	5
55 – 65	4
65 – 75	0
75 – 85	8
85 – 95	2
Total	25

What is the class size of the intervals?

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24. Read the frequency distribution table given below and answer the questions that follow:

Class Interval	Frequency
25 – 35	1
35 – 45	5
45 – 55	5
55 – 65	4
65 – 75	0
75 – 85	8
85 – 95	2
Total	25

What is the upper limit of the fifth class?

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25. Read the frequency distribution table given below and answer the questions that follow:

Class Interval	Frequency
25 – 35	1
35 – 45	5
45 – 55	5
55 – 65	4
65 – 75	0
75 – 85	8
85 – 95	2
Total	25

What is the lower limit of the last class?

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26. Application on problem solving strategy

Given below is a pie chart depicting the reason given by people who had injured their lower back. Study the pie chart and find the number of people who injured their back while either bending and lifting. A total of

600 people were surveyed.

1. Lifting
2. Twisting
3. Bending
4. Pulling
5. Others
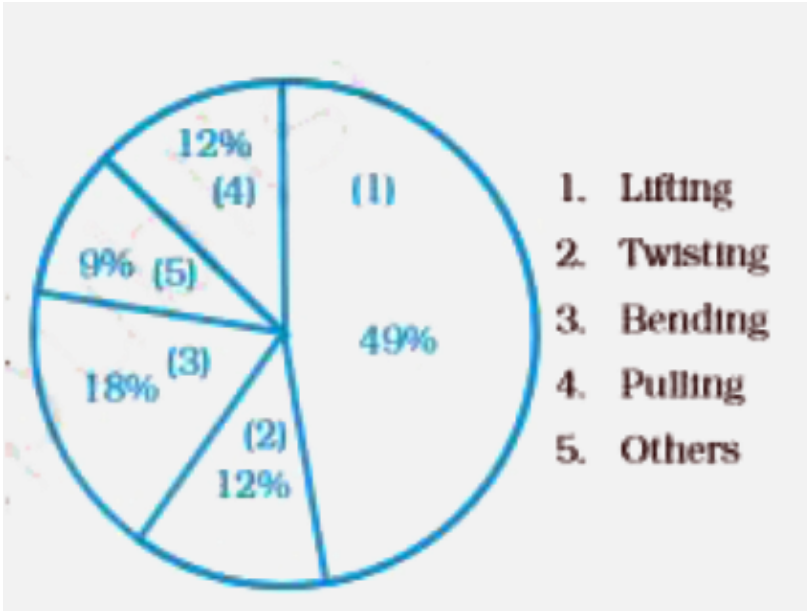
Think And Discuss

1. Given below is a pie chart depicting the reason given by people who had injured their lower back.

If the total angle covered by all sectors is $360°$, find the angle covered by the sector representing the people who injured their back by pulling only.

2. Given below is a pie chart depicting the reason given by people who had injured their lower back.

If the number of people surveyed is doubled, would the number of people who injured their back by bending and lifting also be doubled?

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Exercise Choose The Correct Answer

1. The height of a rectangle in a histogram shows

    A. Width of the class

    B. Upper limit of the class

    C. Lower limit of the class

    D. Frequency of the class

Answer: D

2. A geometric representation showing the relationship between a whole

and its parts is a

A. Pie chart

B. Histogram

C. Bar graph

D. Pictograph

Answer: A

3. In a pie chart, the total angle at the centre of the circle is

A. $180°$

B. $360°$

C. $270°$

D. $90°$

Answer: B

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4. The range of the data 30, 61, 55, 56, 60, 20, 26, 46, 28, 56 is

A. 26

B. 30

C. 41

D. 61

Answer:

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5. Which of the following is not a random experiment?

A. Tossing a coin

B. Rolling a dice

C. Choosing a card from a deck of 52 cards

D. Thowing a stone from a roof of a building

Answer:

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6. What is the probability of choosing a vowel from the alphabets?

A. $\dfrac{21}{26}$

B. $\dfrac{5}{26}$

C. $\dfrac{1}{26}$

D. $\dfrac{3}{26}$

Answer:

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7. In a school only, 3 out of 5 students can participate in a competition. What is the probability of the students who do not make it to the competition?

A. 0.65

B. 0.4

C. 0.45

D. 0.6

Answer: B

8. Observe the pie chart given below and answer questions based on it.

Which colour received $\frac{1}{5}$ of the votes?
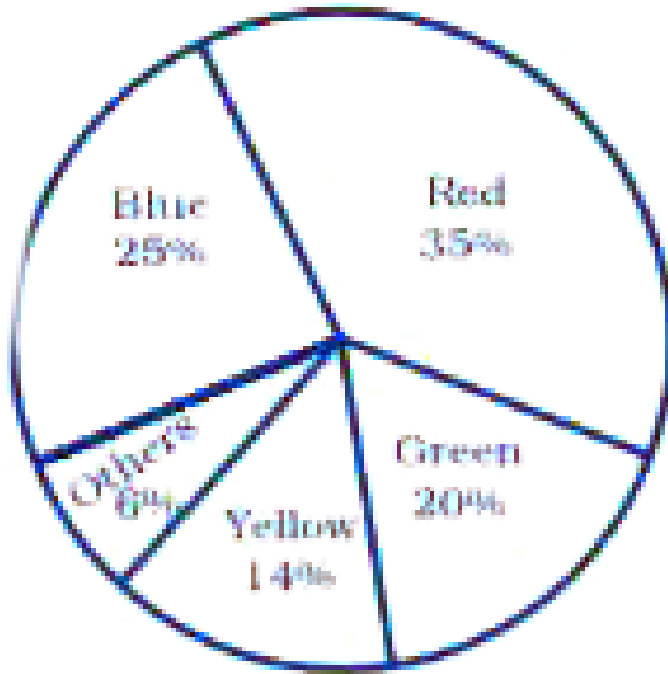
A. Red

B. Blue

C. Green

D. Yellow

Answer:

9. Students of a class voted for their favourite colour. If 400 students voted in all, then how many did vote 'Others' colour as their favourite? .

A. 6

B. 20

C. 24

D. 40
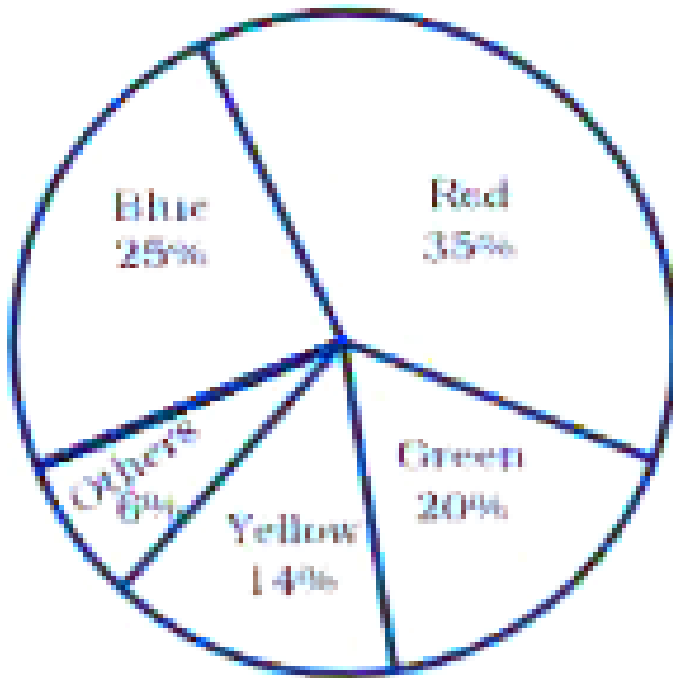
Answer:

10. Students of a class voted for their favourite colour and a pie chart was prepared based on the data collected.

Blue 25%

Red 35%

Others 6%

Yellow 14%

Green 20%
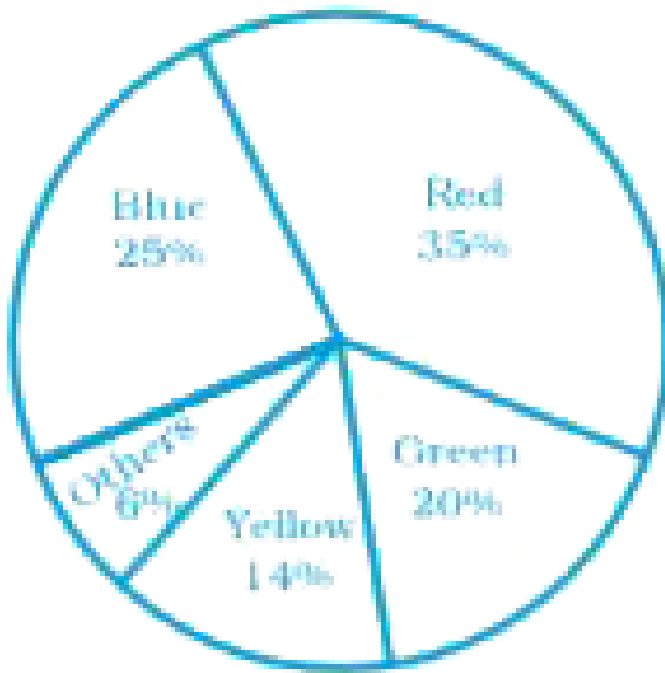
Observe the pie chart given below and answer questions based on it.

Which of the following is a reasonable conclusion for the given data?

A. $\frac{1}{20}$ th student voted for blue colour

B. Green is the least popular colour

C. The number of students who voted for red colour is two times the number of students who voted for yellow colour

D. Number of students liking together yellow and green colour is approximately the same as those for red colour.

Answer:

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11. Listed below are the temperature in $^{\circ}C$ for 10 days.

$-6, \ -8, 0, 3, 2, 0, 1, 5, 4, 4$

What is the range of the data?

A. 8

B. $13°C$

C. $10°C$

D. $12°C$

Answer: B

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12. There are 4 blue, 7 red, 3 black and 6 white balls on a table. A cat jumped on the table and knocked out one ball on the floor. What is the probability that the ball is blue?

A. $\dfrac{7}{20}$

B. $\dfrac{3}{5}$

C. $\dfrac{1}{5}$

D. $\dfrac{1}{4}$

Answer:

13. Rahul wins if spinner lands on red. Varun wins if spinner lands on blue and Yash wins if it lands on green. Which of the following spinner should be used to make the game fair?

Red	Green		Red	Green		Blue			R	
Blue	Red		Green	Blue		Green	Green		B	G
	Green					Blue	Blue		G	B
							Red		R	

(I)   (II)   (III)   (Iv)
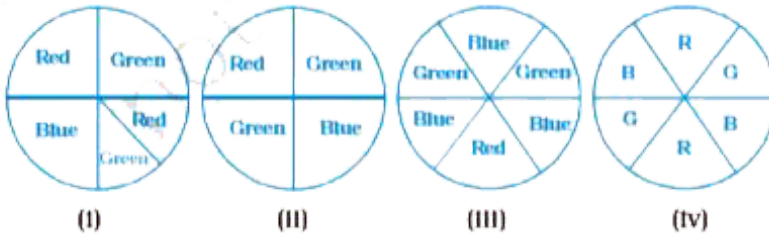
A. (i)

B. (ii)

C. (iii)

D. (iv)

Answer:

14. In a frequency distribution with classes 0-10, 10-20 etc., the size of the class intervals is 10. The lower limit of fourth class is

A. 40

B. 50

C. 20

D. 30

Answer: D

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15. A coin is tossed 200 times and head appeared 120 times. The probability of getting a head in this experiment is

A. $\dfrac{2}{5}$

B. $\dfrac{3}{5}$

C. $\dfrac{1}{5}$

D. $\dfrac{4}{5}$

Answer:

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16. 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

A. $120°$

B. $150°$

C. $144°$

D. $40°$

Answer:

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17. Monthly salary of a person is Rs. 15000. Then the amount he spends on food and house rent given the central angle of the sector representing this is $60°$.

A. Rs. 5000

B. Rs. 2500

C. Rs. 6000

D. Rs. 9000

Answer:

18. The central angle of the sector showing the distribution of protein and of the dry elements is

Protein
16%

of the dry
elements
14%

Water
70%
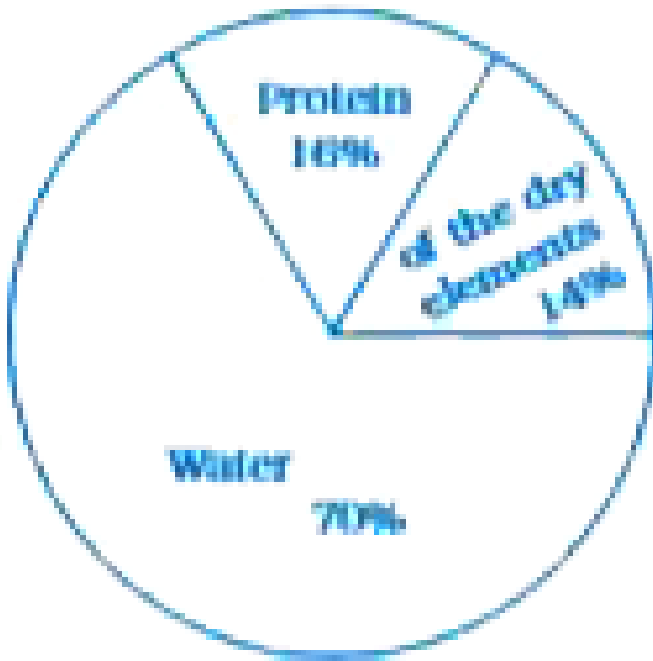
A. $108°$

B. $54°$

C. $30°$

D. $216°$

Answer:

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19. Rohan and Shalu are playing with 5 cards as shown in the figure. What is the probability of Rohan picking a card without seeing, that has the number 2 on it?
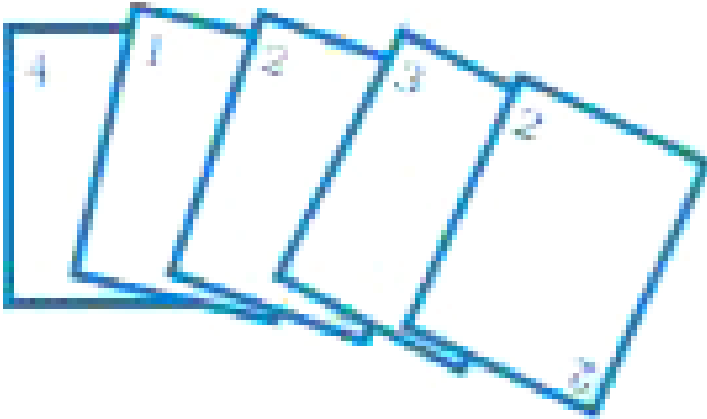
A. $\dfrac{2}{5}$

B. $\dfrac{1}{5}$

C. $\dfrac{3}{5}$

D. $\dfrac{4}{5}$

Answer:

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20. What is the ratio of the distribution of proteins in the muscles to that of the distribution of proteins in the bones? (a) 1 : 18 (b) 1 : 2 (c) 2 : 1 (d) 18 : 1

A. 3 : 1

B. 1 : 2

C. 1 : 3

D. 2 : 1

Answer:

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21. What is the central angle of the sector in the pie chart representing skin and bones together?

Muscles $\frac{1}{3}$

Harmones Enzymes and other proteins

Skin $\frac{1}{10}$

Bones $\frac{1}{6}$
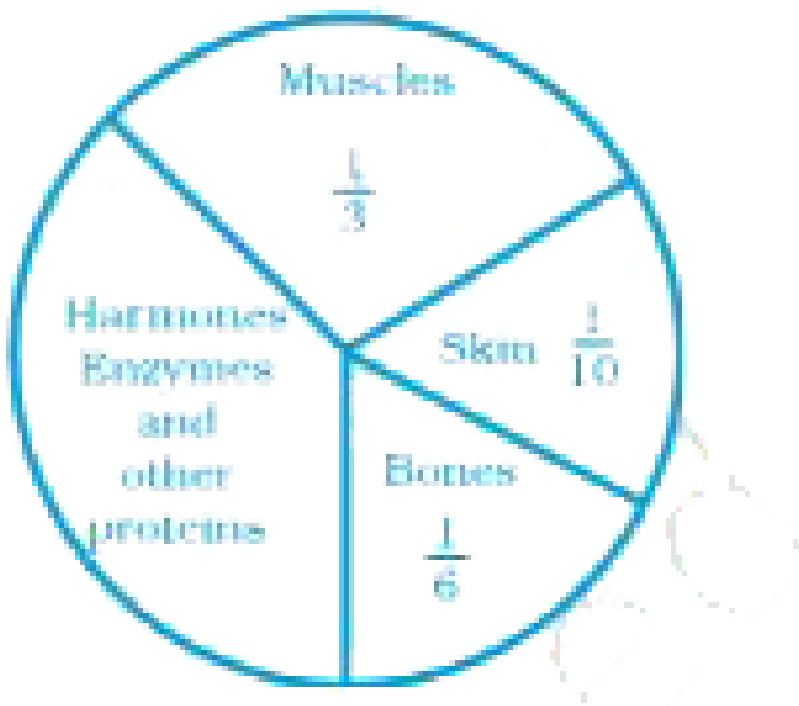
A. $36°$

B. $60°$

C. $90°$

D. $96°$

Answer:

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22. What is the central angle of the sector in the pie chart representing hormones enzymes and other proteins.

Muscles $\frac{1}{3}$

Skin $\frac{1}{10}$

Harmones Enzymes and other proteins

Bones $\frac{1}{6}$
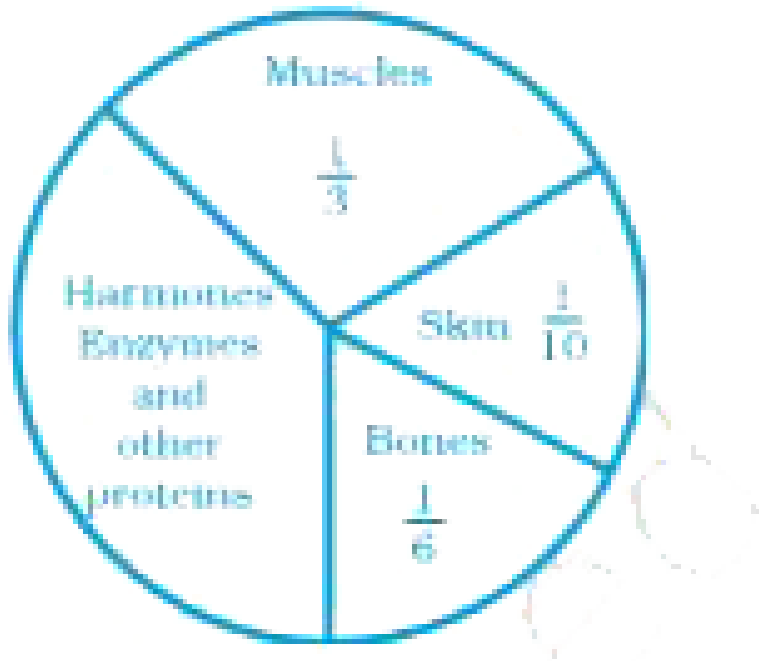
A. $120°$

B. $144°$

C. $156°$

D. $176°$

Answer:

23. A coin is tossed 12 times and results in 7 tails. Then chance of occurrence of Head is

A. $\dfrac{1}{2}$

B. $\dfrac{5}{12}$

C. $\dfrac{7}{12}$

D. $\dfrac{5}{7}$

Answer:

24. Total number of outcomes, when a ball is drawn from a bag which contains 3 red, 5 black and 4 blue balls is

A. 8

B. 7

C. 9

D. 12

Answer:

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25. A graph showing two sets of data simultaneously is known as

A. Pictograph

B. Histogram

C. Pie chart

D. Double bar graph

Answer: D

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26. Size of the class 150-175 is

A. 150

B. 175

C. 25

D. -25

Answer: C

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27. In a throw of a dice, the probability of getting the number 7 is

A. $\dfrac{1}{2}$

B. $\dfrac{1}{6}$

C. 1

D. 0

Answer:

28. Data represented using circles is known as

A. Bar graph

B. Histogram

C. Pictograph

D. Pie chart

Answer: D

29. Tally marks are used to find

A. Class intervals

B. Range

C. Frequency

D. Upper limit

Answer: C

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30. Upper limit of class interval 75-85 is

A. 10

B. -10

C. 75

D. 85

Answer: D

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31. 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?

A. $\dfrac{1}{5}$

B. $\dfrac{2}{5}$

C. $\dfrac{3}{5}$

D. $\dfrac{4}{5}$

Answer:

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32. A glass jar contains 6 red, 5 green, 4 blue and 5 yellow marbles of same size. Hari takes out a marble from the jar at random. What is the probability that the chosen marble is of red colour?

A. $\dfrac{7}{10}$

B. $\dfrac{3}{10}$

C. $\dfrac{4}{5}$

D. $\dfrac{2}{5}$

Answer:

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33. If coin is tossed twice, then the number of possible outcomes is

....

A. 1

B. 2

C. 3

D. 4

Answer:

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34. The coin is tossed three times.

A. 3

B. 4

C. 6

D. 8

Answer:

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35. A dice is tossed two times. The number of possible outcomes is

A. 12

B. 24

C. 36

D. 30

Answer: C

Exercise Fill In The Blanks

1. Data available in an unorganised form is called _____data.

    A. outcomes

    B. raw data

    C. class

    D. frequency

Answer: B

2. In the class interval 20 - 30, the lower class limit is _____

3. In the class interval 26 - 33, 33 is known as _____

4. The range of the data 6, 8, 16, 22, 8, 20, 7, 25 is _____.

5. Cbse|Pie Charts

6. In the experiment of tossing a coin one time, the outcome is either _____or_____ .

7. When a dice is rolled, the six possible outcomes are _____.

8. Each outcome or a collection of outcomes in an experiment makes an

_____

9. An experiment whose outcomes cannot be predicted exactly in advance

is called a _____ experiment.

10. The difference between the upper and lower limit of a class interval is

called the _____of the class interval.

11. The sixth class interval for a grouped data whose first two class intervals are 10 - 15 and 15 – 20 is _____.

The vertical axis is labelled "Number of people" and the horizontal axis is labelled "Number of books".
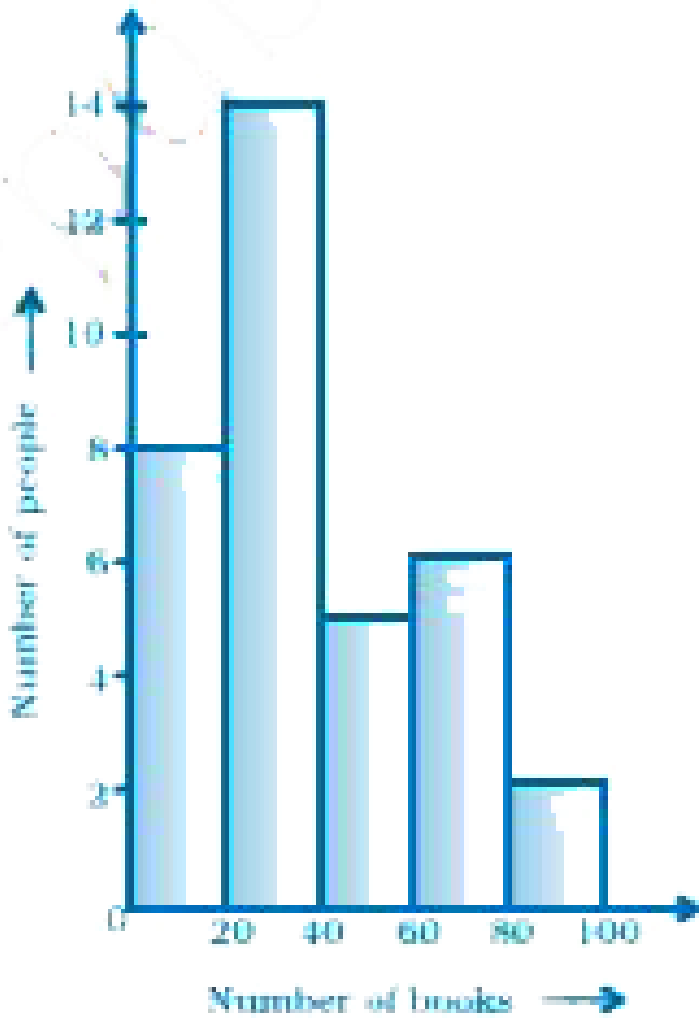
12.

The total number of people surveyed is _____.
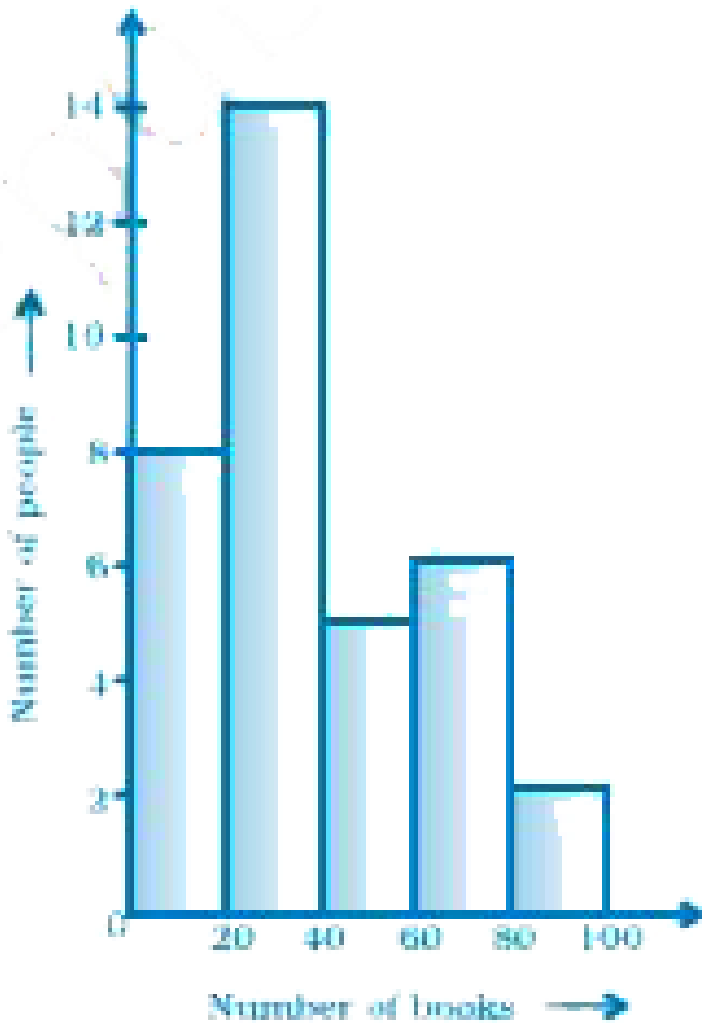
13.

The number of people owning books more than 60 is _____.
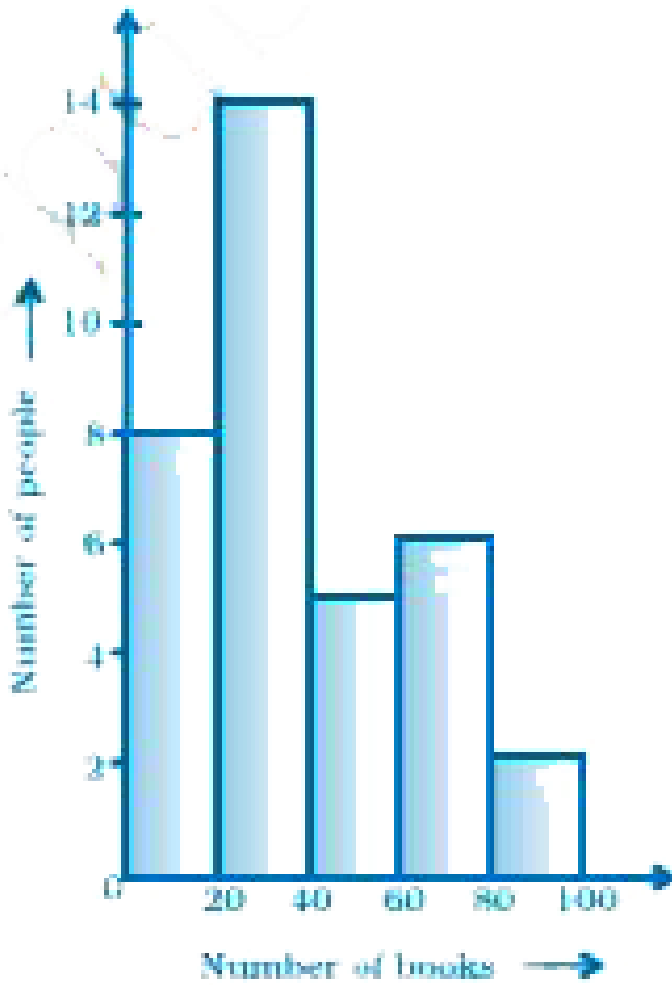
14.

The number of people owning books less than 40 is _____.

15. . .

The number of people having books more than 20 and less than 40 is

_____.

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16. The number of times a particular observation occurs in a given data is called its _____.

17. When the number of observations is large, the observations are usually organised in groups of equal width called _____.

18. The total number of outcomes when a coin is tossed is _____.

19. The class size of the interval 80 - 85 is _____.

20. In a histogram _____are drawn with width equal to a class interval without leaving any gap in between.

21. When a dice is thrown, the outcomes are _____.

22. In a histogram, class intervals and frequencies are taken along _____axis and _____axis.

23. In the class intervals 10-20, 20-30, 20 is taken in the interval 10-20 (b) the interval 20-30 both intervals 10-20, 20-30 (d) none of the intervals

1. A type of graph in which a circle is divided into sectors such that each sector represents a proption of the whole is a

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2. The central angle of a component in a pie chart is _____.

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3. The central angle of a component in a pie chart is _____.

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4. In a pie chart two central angles can be of $180°$.

5. In a pie chart two or more central angles can be equal.

6. The probability of getting a prime number when a die is thrown once is $\dfrac{2}{3}$.

7.

Marks (obtained out of 10)	4	5	7	8	9	10
Frequency	5	10	8	6	12	9

9 students got full marks. ??

8.

Marks (obtained out of 10)	4	5	7	8	9	10
Frequency		5	10	8	6	12	9

The frequency of less than 8 marks is 29. ??

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9.

Marks (obtained out of 10)	4	5	7	8	9	10
Frequency		5	10	8	6	12	9

The frequency of more than 8 marks is 21.

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10.

Marks (obtained out of 10)	4	5	7	8	9	10
Frequency		5	10	8	6	12	9

10 marks the highest frequency.

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11. If the fifth class interval is 60 - 65, fourth class interval is 55 - 60, then the first class interval is 45-50.

12. From the histogram given on the right, we can say that 1500 males above the age of 20 are literate.
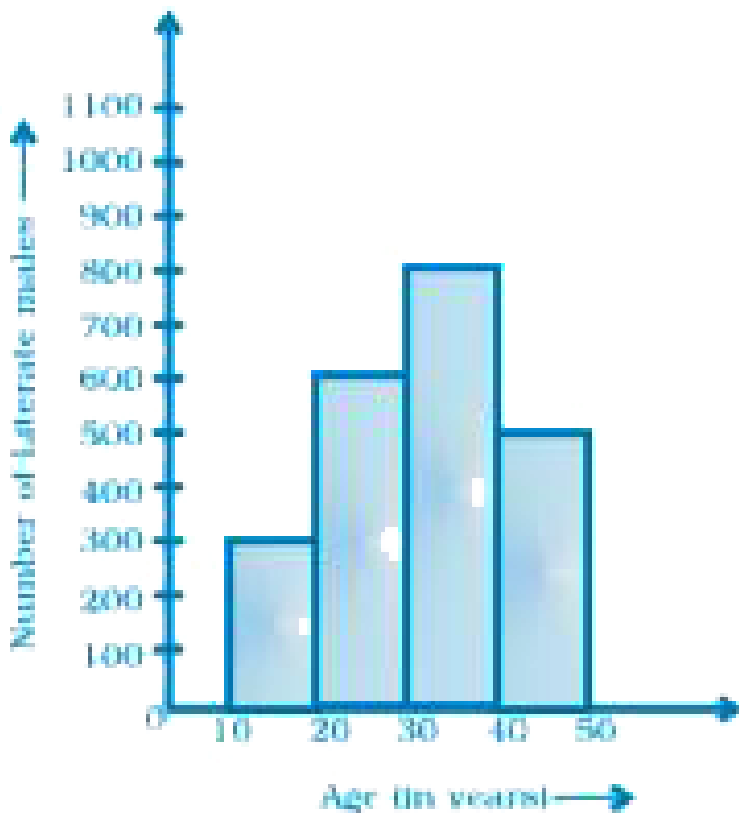
13. The class size of the class interval 60 - 68 is

A. 6

B. 7

C. 9

D. 8

Answer: D

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14. If coin is tossed twice, then the number of possible outcomes is ....

> ▶ **Watch Video Solution**

15. A die is thrown once. The probability of getting an even numbers is

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16. On throwing a dice once, the probability of occurence of a composite number is $\dfrac{1}{2}$. True or false.

17. If there are 15 balls in a bag with 6 red, 4 white and 5 yellow, then the probability of drawing a yellow ball is.

18. Set of all possible outcomes of an experiment is called its

19. The probability of getting number 6 in a throw of a dice is $\dfrac{1}{6}$. Similarly the probability of getting a number 5 is $\dfrac{1}{5}$. True or false.

20. The probability of getting a prime number is the same as that of a composite number in a throw of a dice. True or false.

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21. If an unbiased dice is rolled, then the probability of getting an even number is _____ then/to that of getting an odd number.

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22. Random experiment

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23. State True or False:

The following pictorial representation of data is a histogram.
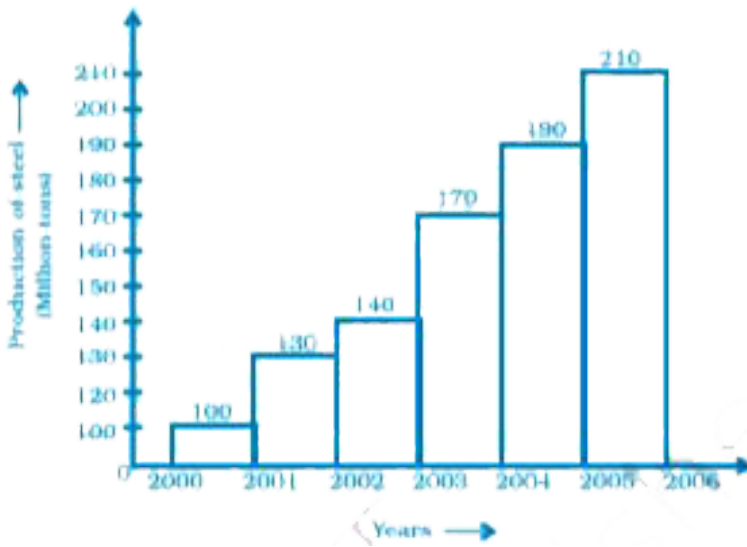
Exercise

1. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

What is the lower limit of the second class interval?

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2. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

What is the upper limit of the last class interval?

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3. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

What is the frequency of the third class?

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4. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

Which interval has a frequency of 10?

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5. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

Which interval has the lowest frequency?

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6. Given below is a frequency distribution table. Read it and answer the questions that follow:

Class Interval	Frequency
10 – 20	5
20 – 30	10
30 – 40	4
40 – 50	15
50 – 60	12

What is the class size?

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7. The top speeds of 30 different land animals have been organised into a

frequency table given below:

Maximum speed (in km/h)	10–20	20–30	30–40	40–50	50–60	60–70
Number of animals	3	5	10	8	0	2

Draw a histogram for the given data.

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8. Given below is a pie chart showing the time spend by a group of 350 children in different games. Observe it and answer the questions that follow.
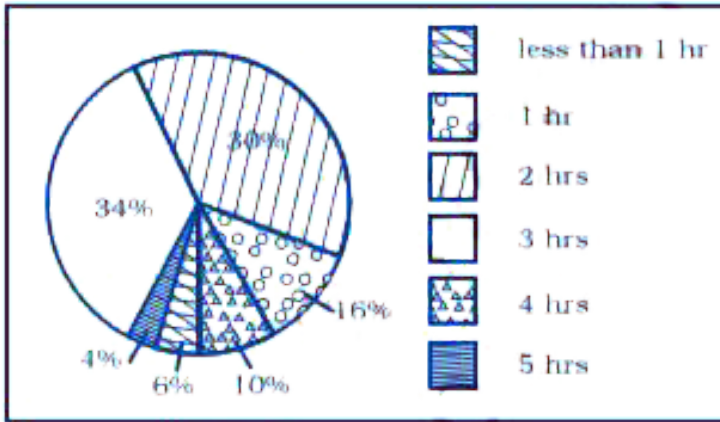
How many children spend at least one hour in playing games?

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9. Given below is a pie chart showing the time spend by a group of 350 children in different games. Observe it and answer the questions that follow.
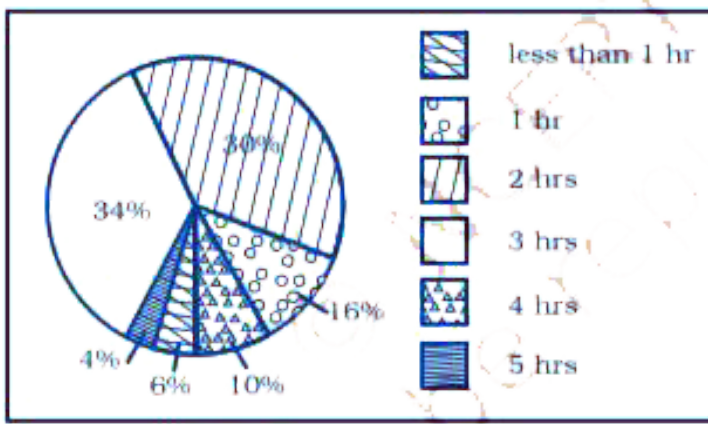
How many children spend more than 2 hours in playing games?

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10. Given below is a pie chart showing the time spend by a group of 350 children in different games. Observe it and answer the questions that follow.
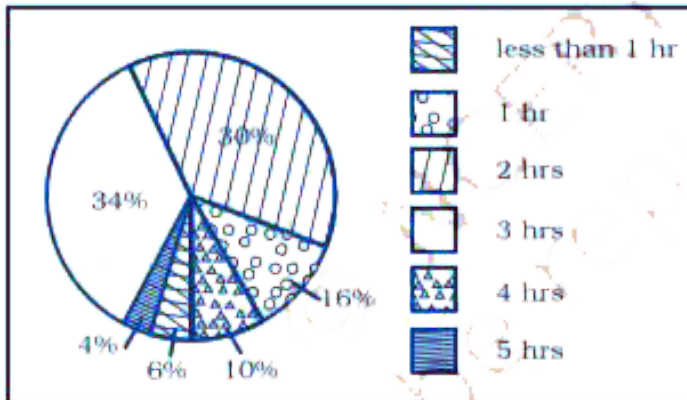
How many children spend 3 or lesser hours in playing games?

11. Given below is a pie chart showing the time spend by a group of 350 children in different games. Observe it and answer the questions that follow.
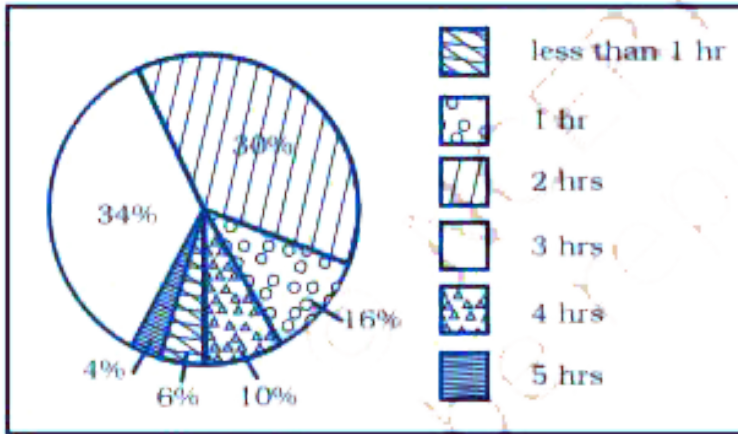
Which is greater — number of children who spend 2 hours or more per day or number of children who play for less than one hour?

12. The pie chart on the right shows the result of a survey carried out to find the modes of travel used by the children to go to school. Study the

pie chart and answer the questions that follow.
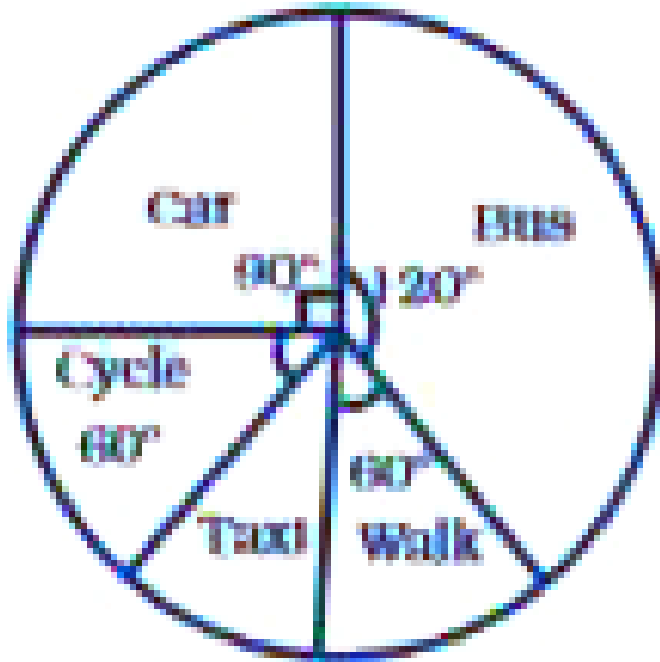
What is the most common mode of transport?

13. The pie chart on the right shows the result of a survey carried out to find the modes of travel used by the children to go to school. Study the pie chart and answer the questions that follow.
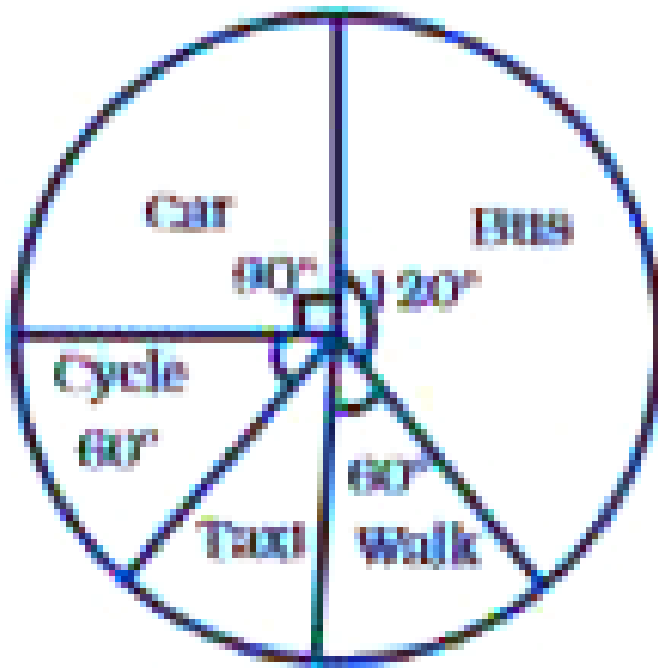
What fraction of children travel by car?

14. The pie chart on the right shows the result of a survey carried out to find the modes of travel used by the children to go to school. Study the pie chart and answer the questions that follow.
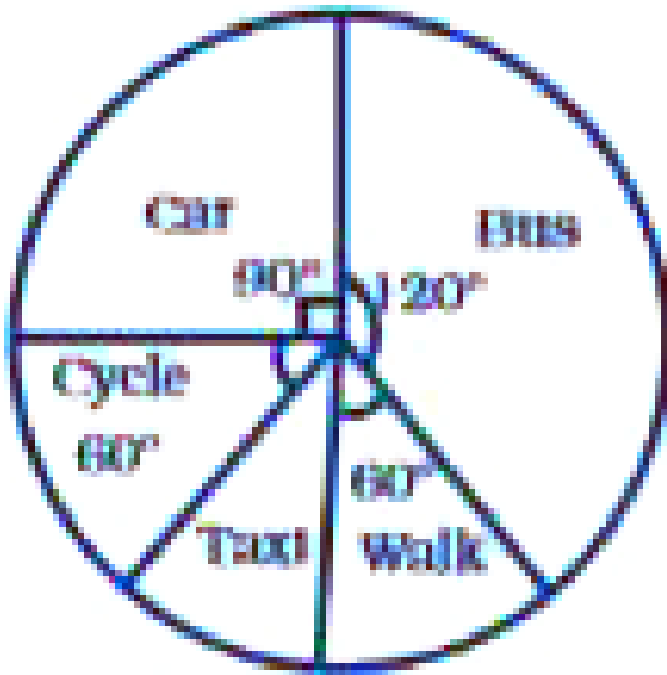
If 18 children travel by car, how many children took part in the survey?

15. The pie chart on the right shows the result of a survey carried out to find the modes of travel used by the children to go to school. Study the pie chart and answer the questions that follow.
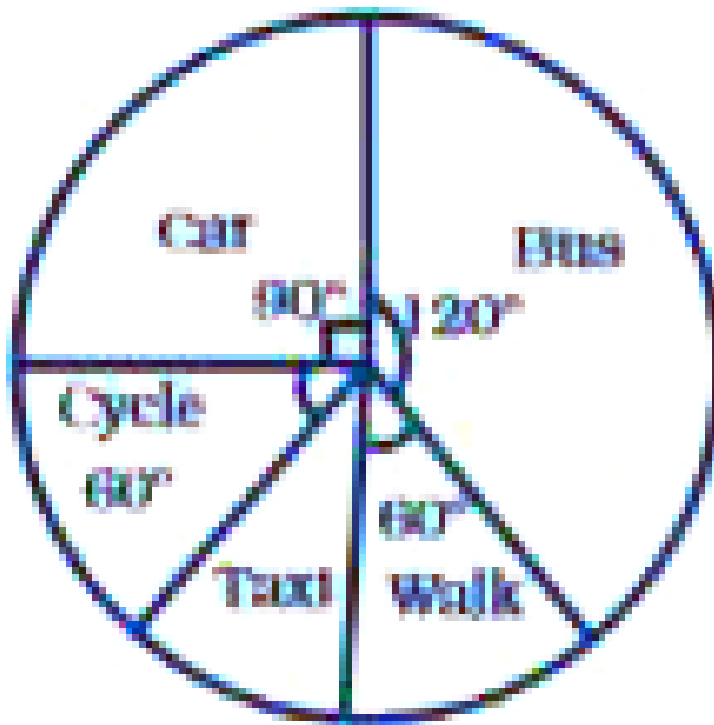
If 18 children travel by car, How many children use taxi to travel to school?

16. The pie chart on the right shows the result of a survey carried out to find the modes of travel used by the children to go to school. Study the pie chart and answer the questions that follow.
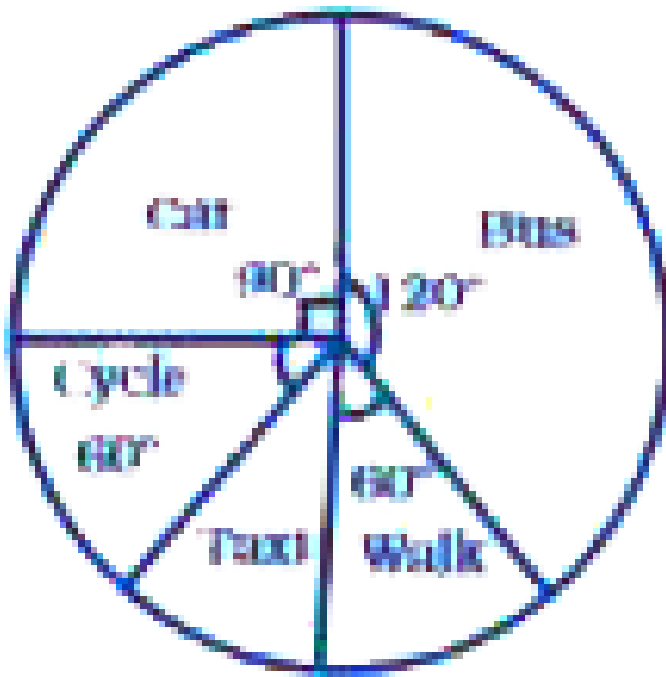
By which two modes of transport are equal number of children travelling?

17. 4 A dice is thrown once, then the probability of getting an odd prime number is

18. A dice is rolled once. What is the probability that the number on top will be

Greater than 5

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19. In a throw of a dice, find the probability of:

(i) getting a multiple of 3

(ii) getting a number which is not a multiple of 3.

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20. A dice is rolled once. What is the probability that the number on top will be

Less than 1

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21. A dice is rolled once. What is the probability that the number on top will be

A factor of 36

22. A dice is rolled once. What is the probability that the number on top will be

A factor of 6

23. Classify the following statements under appropriate headings.

(a) Getting the sum of angles of a triangle as $180°$.

(b) India winning a cricket match against Pakistan.

(c) Sun setting in the evening.

(d) Getting 7 when a die is thrown.

(e) Sun rising from the west.

(f) Winning a racing competition by you.

Certain to happen	Impossible to happen	May or may not happen

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24. Study the pie chart given below depicting the marks scored by a student in an examination out of 540. Find the marks obtained by him in each subject.

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25. A bag 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 number of yellow balls is.

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26. Look at the histogram below and answer the questions that follow.
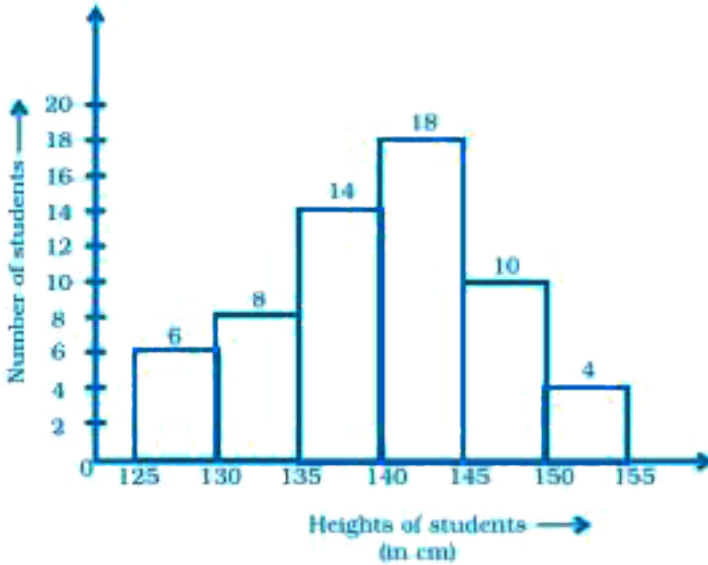
How many students have height more than or equal to 135 cm but less than 150 cm?

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27. Look at the histogram below and answer the questions that follow.
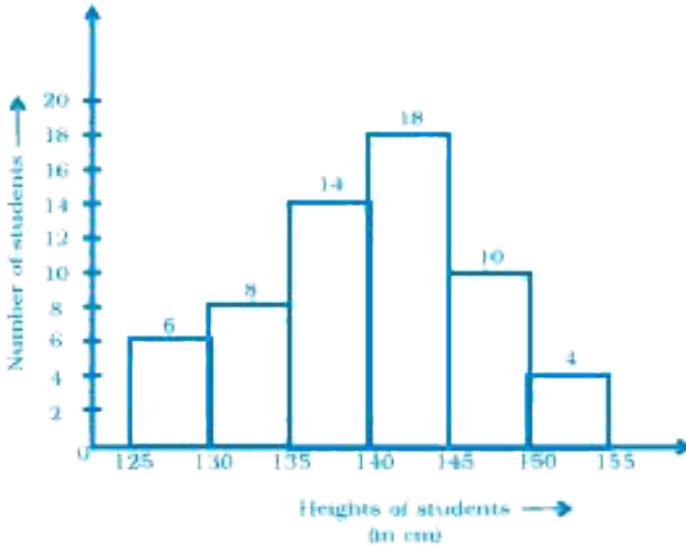
Which class interval has the least number of students?

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28. Look at the histogram below and answer the questions that follow.
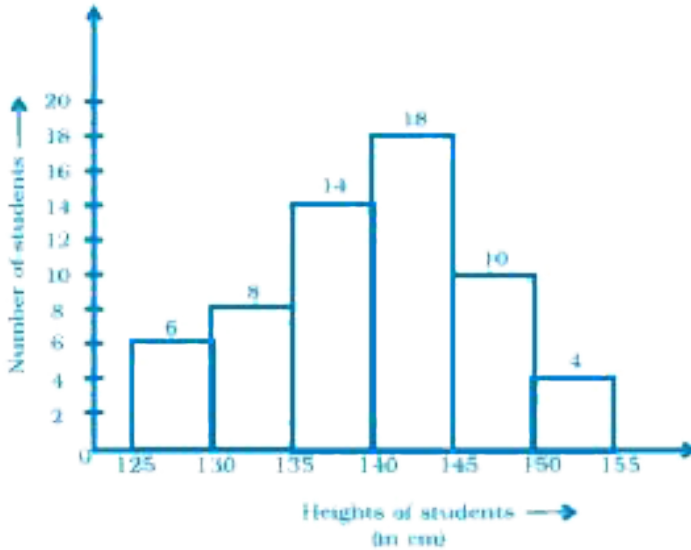
What is the class size?

29. Look at the histogram below and answer the questions that follow.
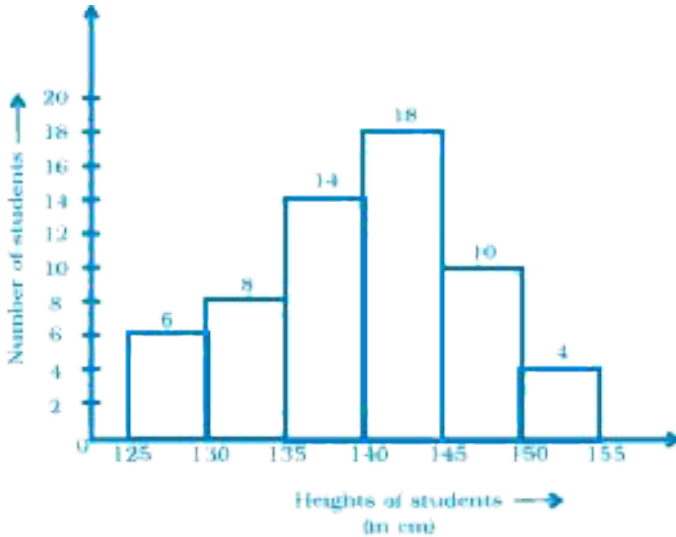
How many students have height less than 140 cm?

30. Following are the number of members in 25 families of a village:

6, 8, 7, 7, 6, 5, 3, 2, 5, 6, 8, 7, 7, 4, 3, 6, 6, 6, 7, 5, 4, 3, 3, 2, 5.

Prepare a frequency distribution table for the data using class intervals 0-2, 2-4, etc.

31. The marks obtained (out of 20) by 30 students of a class in a test are as follows:

14, 16, 15, 11, 15, 14, 13, 16, 8, 10, 7, 11, 18, 15, 14, 19, 20, 7, 10, 13, 12, 14, 15, 13, 16, 17, 14, 11, 10, 20.

Prepare a frequency distribution table for the above data using class intervals of equal width in which one class interval is 4-8 (excluding 8 and including 4).

32. The weights (in kg) of 30 students of a class are

39,43,32,37,29,26,31,45,

46,31,37,38,30,39,36,41,35,34,41,46,39,38,36,38,40,42,33,43,44,33.

Prepare a frequency distribution table using one class interval as 30-35 in which 30 is included and 35 excluded. using the above data, draw a histogram.

33. The weights (in kg) of 30 students of a class are

39,43,32,37,29,26,31,45,

46,31,37,38,30,39,36,41,35,34,41,46,39,38,36,38,40,42,33,43,44,33.

Prepare a frequency distribution table using one class interval as 30-35 in which 30 is included and 35 excluded. using the above data, draw a histogram.

34. Shoes of the following brands are sold in Nov. 2007 at a shoe store. Construct a pie chart for the data.

Brand	Number of pair of shoes sold
A	130
B	120
C	90
D	40
E	20

35. The following pie chart depicts the expenditure of a state government under different heads,
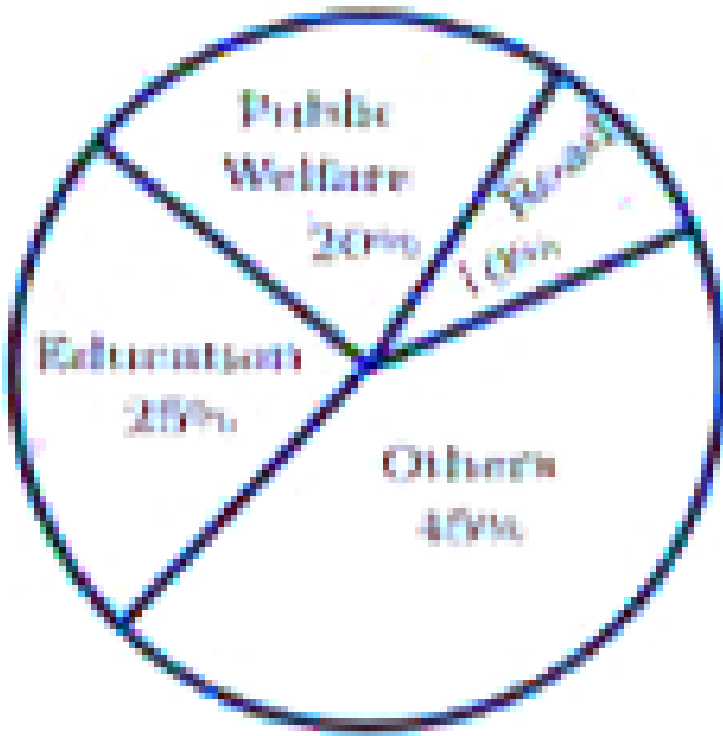
If the total spending is 10 crores, how much 20% do money was spent on roads?

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36. The following pie chart depicts the expenditure of a state government under different heads,(if the total spending is 10 crores)
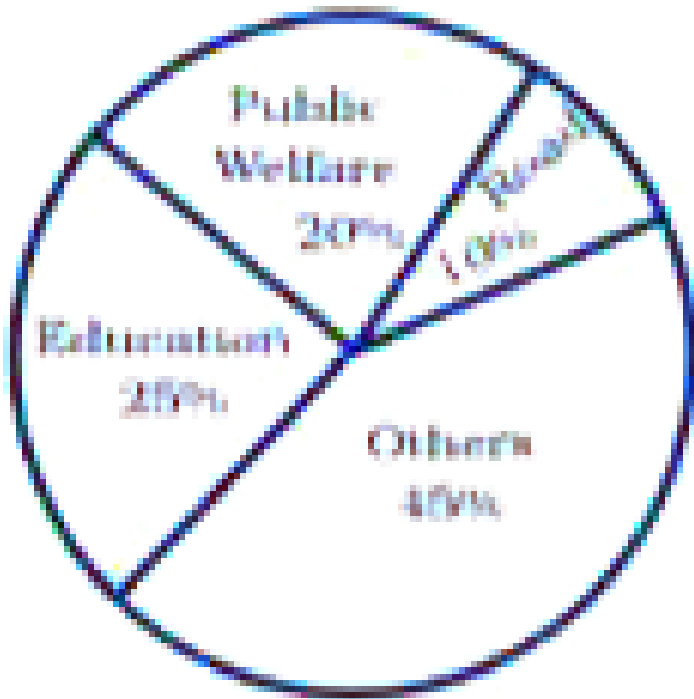
How many times is the amount of money Others spent on education compared to the amount spent on roads?

▶ Watch Video Solution

37. The following pie chart depicts the expenditure of a state government under different heads,
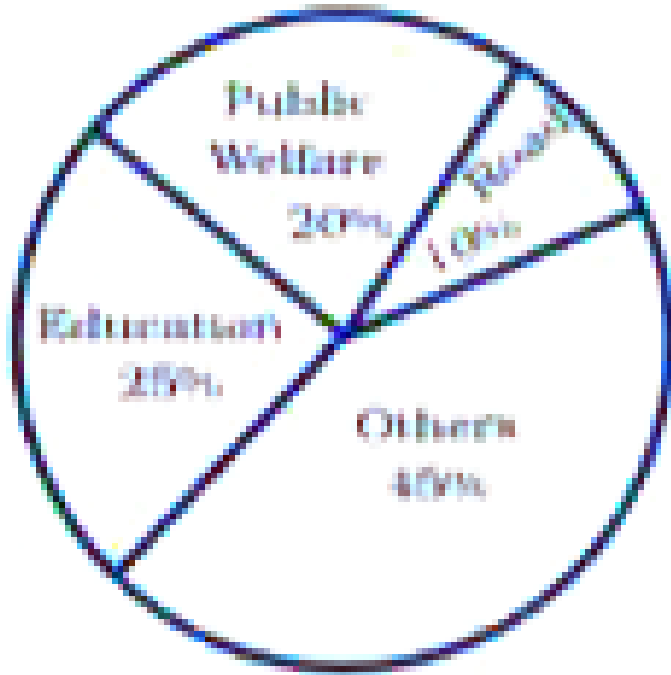
What fraction of the total expenditure is spent on both roads and public welfare together?

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38. The following data represents the different number of animals in a zoo. Prepare a pie chart for the given data.

Animals	Number of animals
Deer	42
Elephant	15
Giraffe	26
Reptiles	24
Tiger	13

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39. Playing cards

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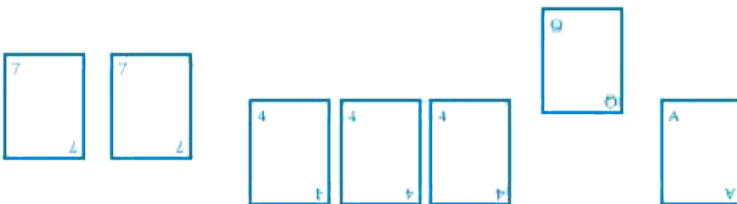
Suhail wins if he picks up a face card. Find the probability of Suhail winning?

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40. 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.]

41. Construct a frequency table for the following weights (in gm) of 35 mangoes using the equal class intervals, one of them is 40-45 (45 not included):   30,40,45,32,43,50,55,62,70,70,61,62,53,52,50,42,35,37,53, 55,65,70,73,74,45,46,58,59,60,62,74,34,35,70,68 What is the class marks of the class interval 40-45? What is the range of the above weights? How many classes are there?

42. Construct a frequency table for the following weights (in gm) of 35 mangoes using the equal class intervals, one of them is 40-45 (45 not included): 30,40,45,32,43,50,55,62,70,70,61,62,53,52,50,42,35,37,53, 55,65,70,73,74,45,46,58,59,60,62,74,34,35,70,68 What is the class marks of the class interval 40-45? What is the range of the above weights? How many classes are there?

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43. Complete the following table:

Weights (in kg.)	Tally Marks	Frequency (Number of persons)
40 – 50	ᚤᚤ ᚤᚤ II	
50 – 60	ᚤᚤ ᚤᚤ IIII	
60 – 70	ᚤᚤ I	
70 – 80	II	
80 – 90	I	

Find the total number of persons whose weights are given in the above table.

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44. Draw a histogram for the following data.

Class interval	10–15	15–20	20–25	25–30	30–35	35–40
Frequency	30	98	80	58	29	50

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45. In a hypothetical sample of 20 people the amounts of money with them were found to be as follows:

114,108,100,98,101,109,117,119,126,131,136,143,156,   169,182,195,207,219,235,118.

Draw the histogram of the frequency distribution (taking one of the class intervals as 50-100)

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46. The histogram given below shows the number of literate females iin the age group of 10 to 40 years. Study the histogram carefully and

answer the questions that follow.
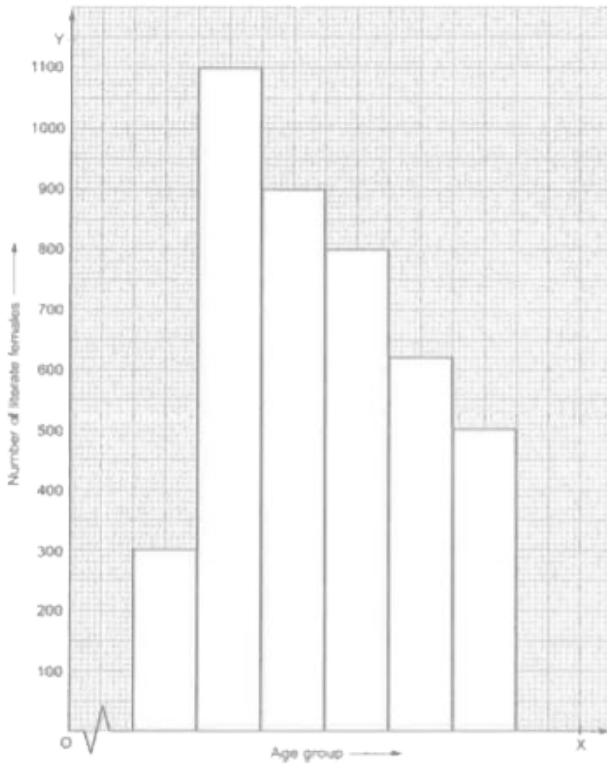
(i) Write the classes, assuming that all the classes are of equal width.

(ii) What is the class width?

(iii) In which age group are the literate females the least?

(iv) In which age group is the number of literate females the highest?

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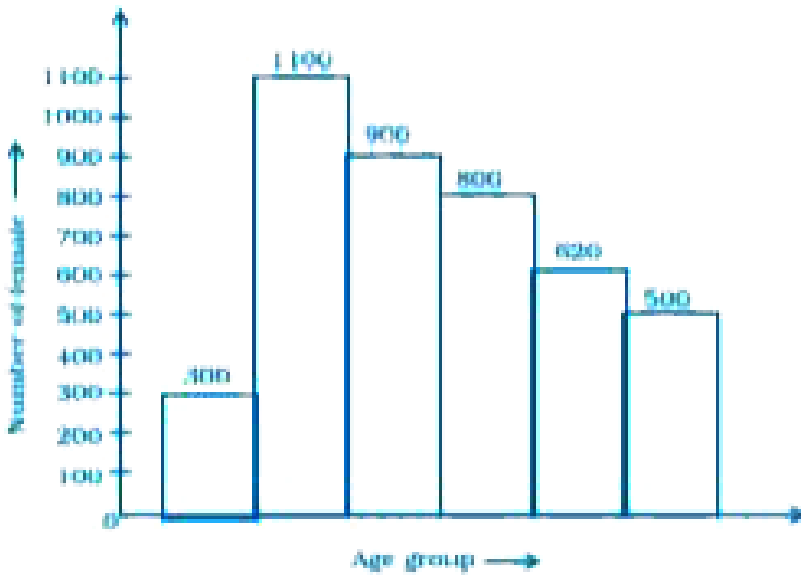**47.** The below histogram shows the number of literate females in the age group of 10 to 40 years in a town.
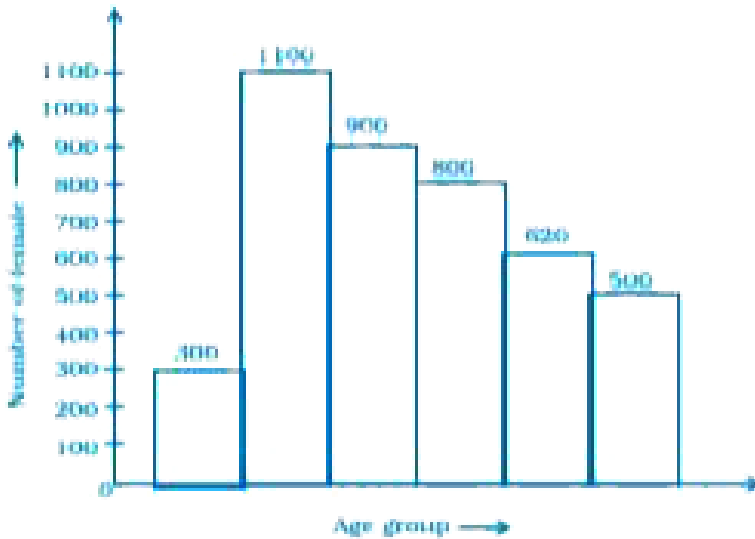

What is the classes width?

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48. The below histogram shows the number of literate females in the age group of 10 to 40 years in a town.
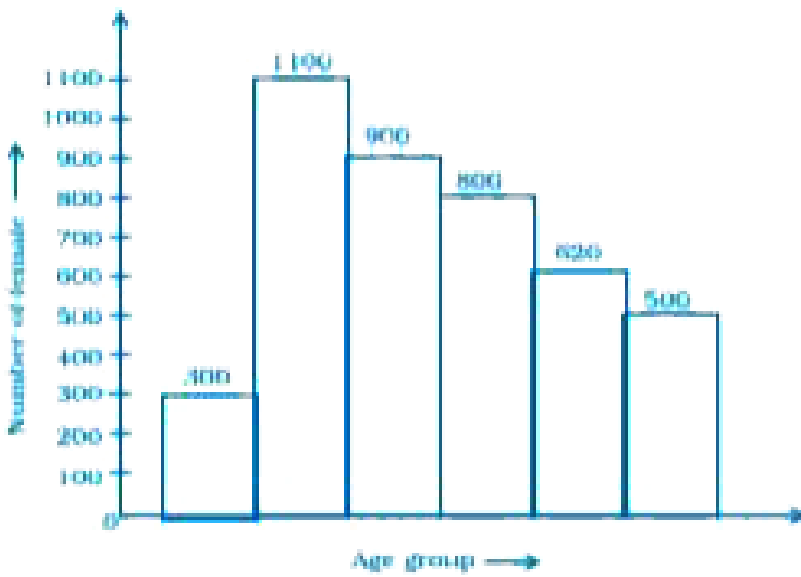
In which age group are literate females the least?

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49. The below histogram shows the number of literate females in the age group of 10 to 40 years in a town.

In which age group is the number of literate females the highest?

50. The following histogram shows the frequency distribution of teaching experiences of 30 teachers in various schools:

What is the class width?
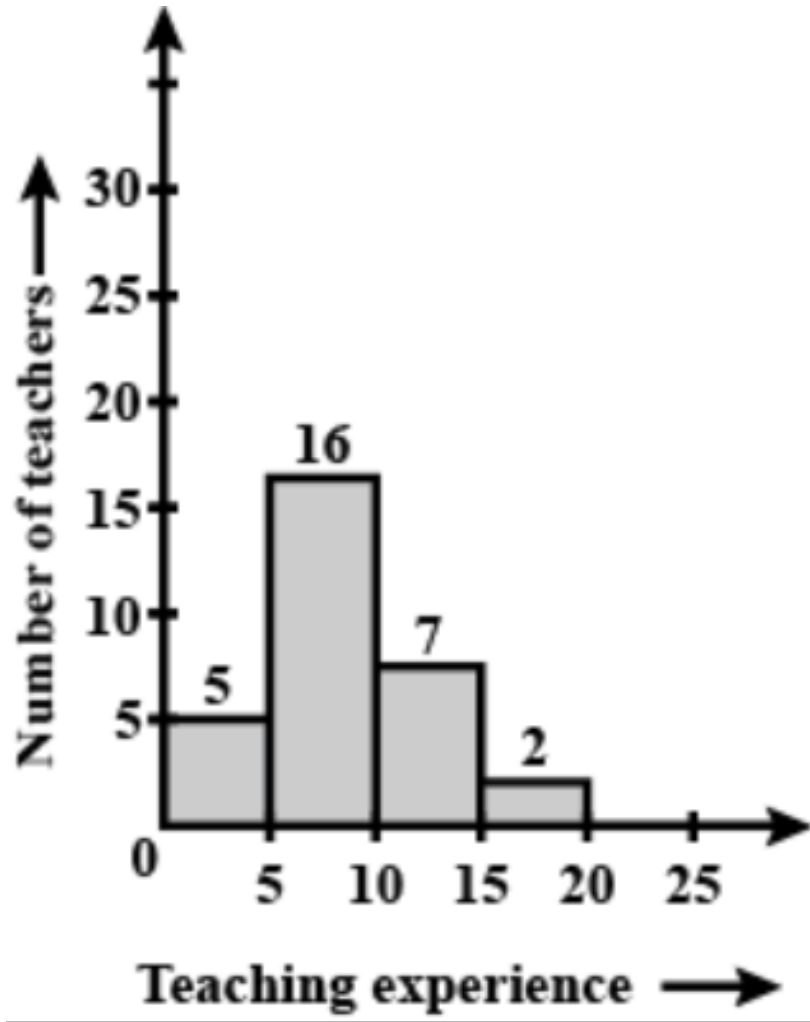
51. The following histogram shows the frequency distribution of teaching experiences of 30 teachers in various schools:

How many teachers are having the maximum teaching experience and how many have the least teaching experience?
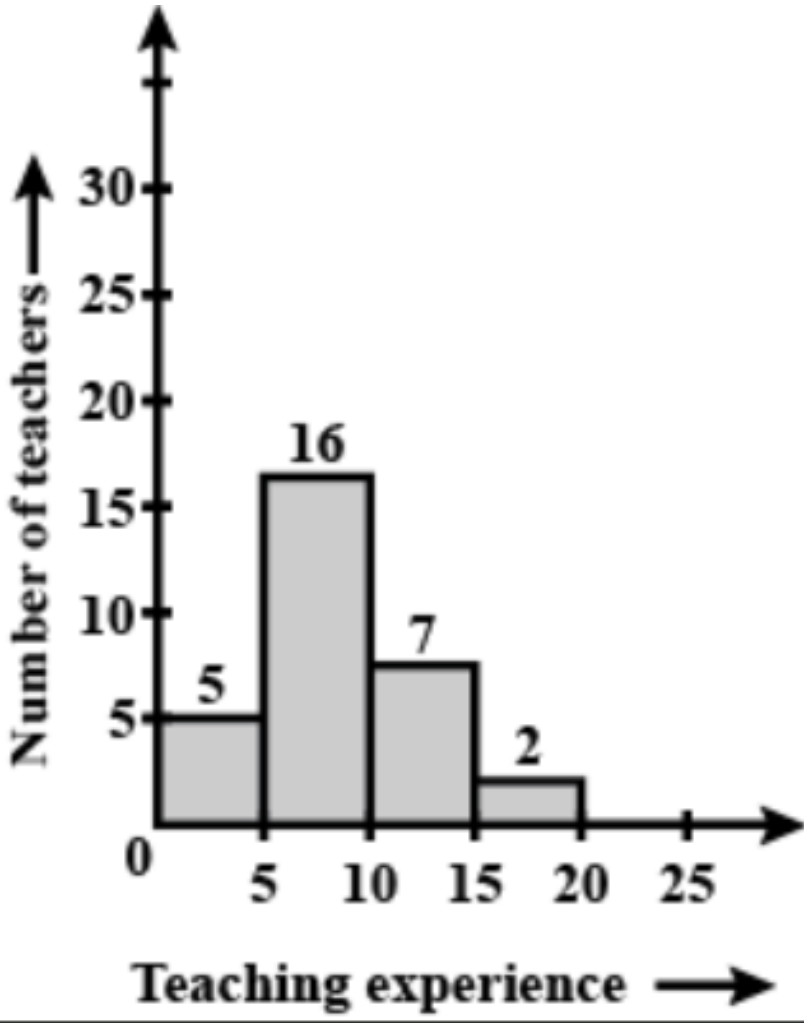
52. The following histogram shows the frequency distribution of teaching

experiences of 30 teachers in various schools:

How many teachers have teaching experience of 10 to 20 years?
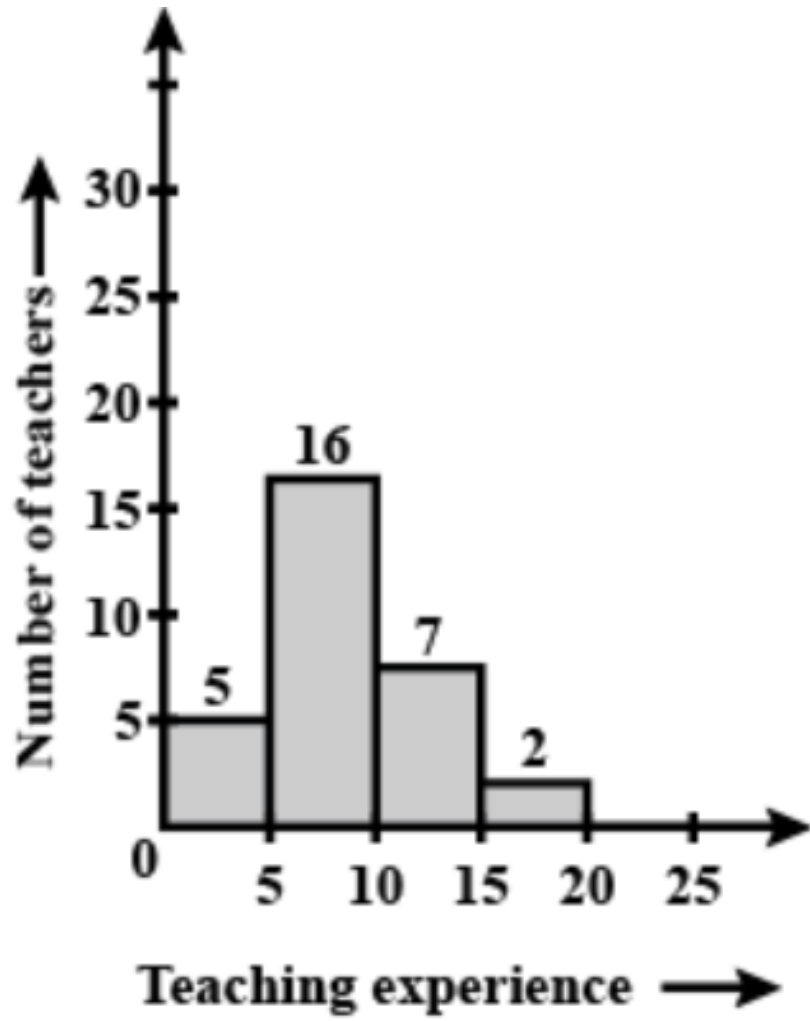
53. In a district, the number of branches of different banks is given below:

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.

54. For the development of basic infrastructure in a district, a project of

Rs 108 crore approved by Development Bank is as follows:

Item Head	Road	Electricity	Drinking water	Sewerage
Amount in crore (Rs.)	43.2	16.2	27.00	21.6

Draw a pie chart for this data.

55. In the time table of a school, periods allotted per week to different

teaching subjects are given below:

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.

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56. 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. From this pie chart answer the following:
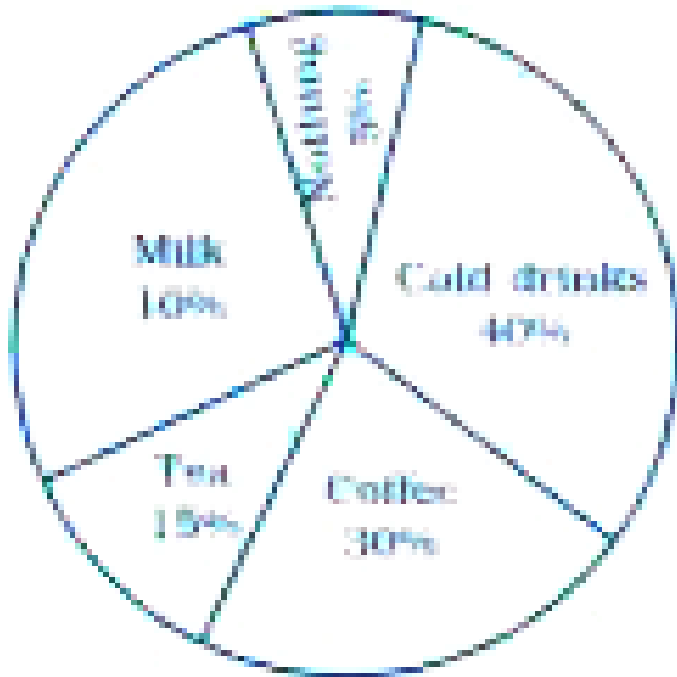
Which type of beverage is liked by the maximum number of people.

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57. A survey was carried out to find the favorite beverage preferred by a certain group of young people. The following pie chart shows the findings of this survey. From this pie chart answer the following:
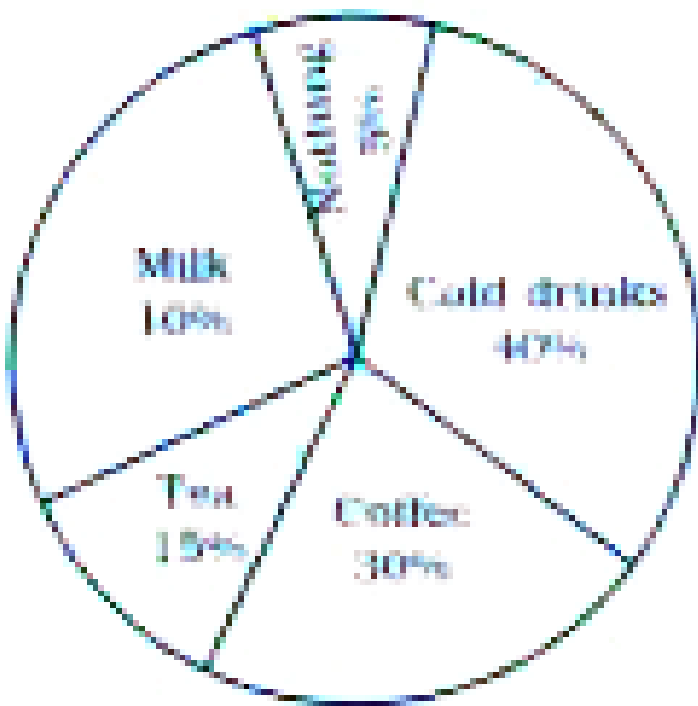
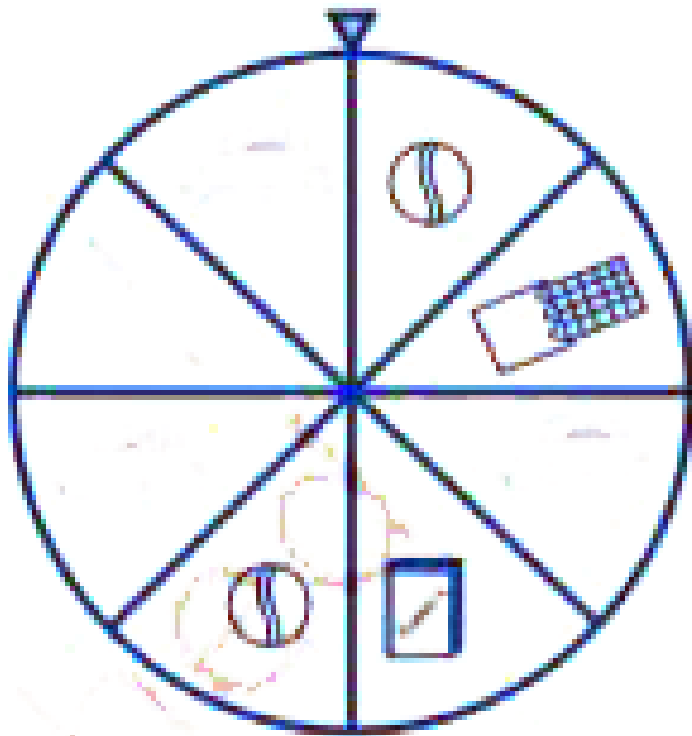If 45 people like tea, how many people were surveyed?

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58. The following data represents the approximate percentage of water in various oceans. Prepare a pie chart for the given data.

Pacific	40 %
Atlantic	30 %
Indian	20 %
Others	10 %

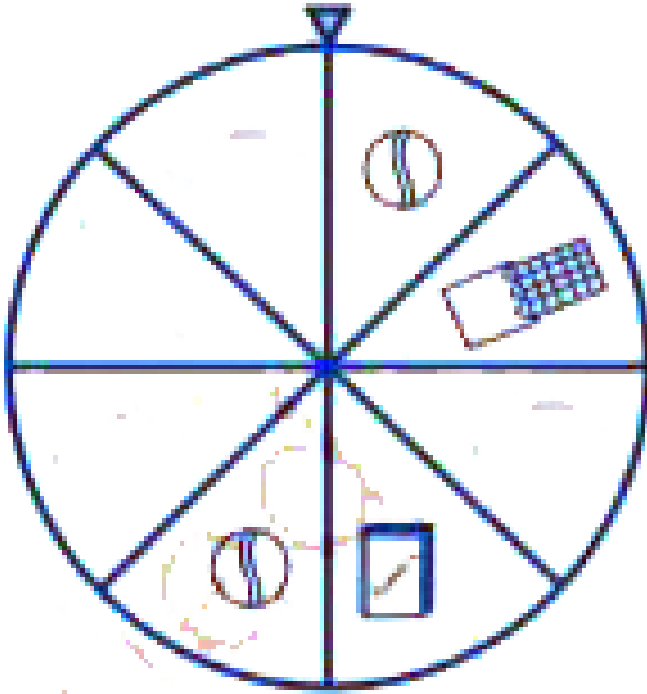**59.** At a Birthday Party, the children spin a wheel to get a gift. Find the probability of

getting a ball

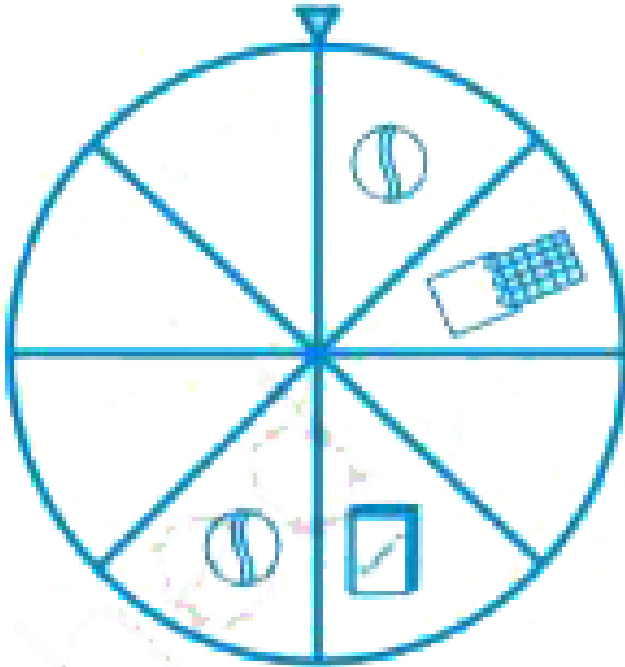**60.** At a Birthday Party, the children spin a wheel to get a gift. Find the probability of

getting a toy car

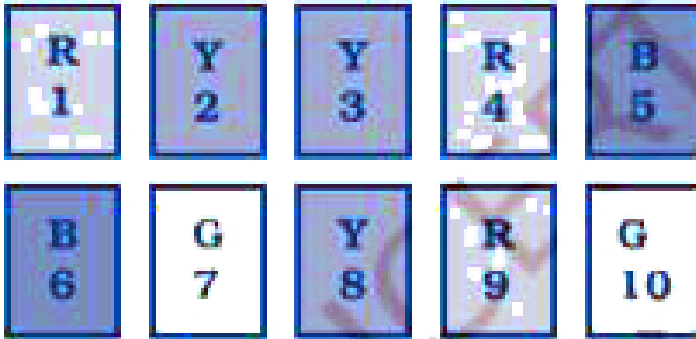**61.** At a Birthday Party, the children spin a wheel to get a gift. Find the probability of

any toy except a chocolate

▶ Watch Video Solution

62. Sonia picks up a card from the given cards.

R 1	Y 2	Y 3	R 4	B 5
B 6	G 7	Y 8	R 9	G 10

Calculate the probability of getting

an odd number

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63. Sonia picks up a card from the given cards.

R 1	Y 2	Y 3	R 4	B 5
B 6	G 7	Y 8	R 9	G 10

Calculate the probability of getting

a Y card

> ▶ **Watch Video Solution**

64. Sonia picks up a card from the given cards.

Calculate the probability of getting

(a) G card

> ▶ **Watch Video Solution**

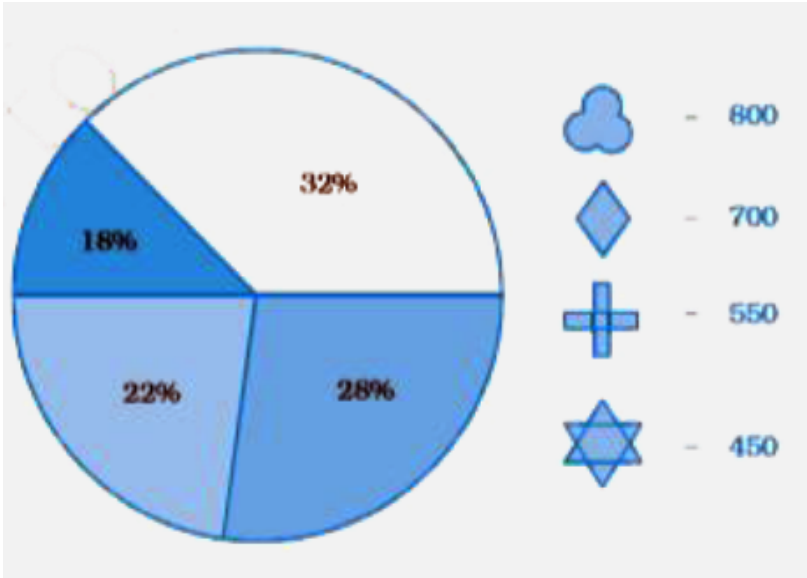**65.** Sonia picks up a card from the given cards.

Calculate the probability of getting
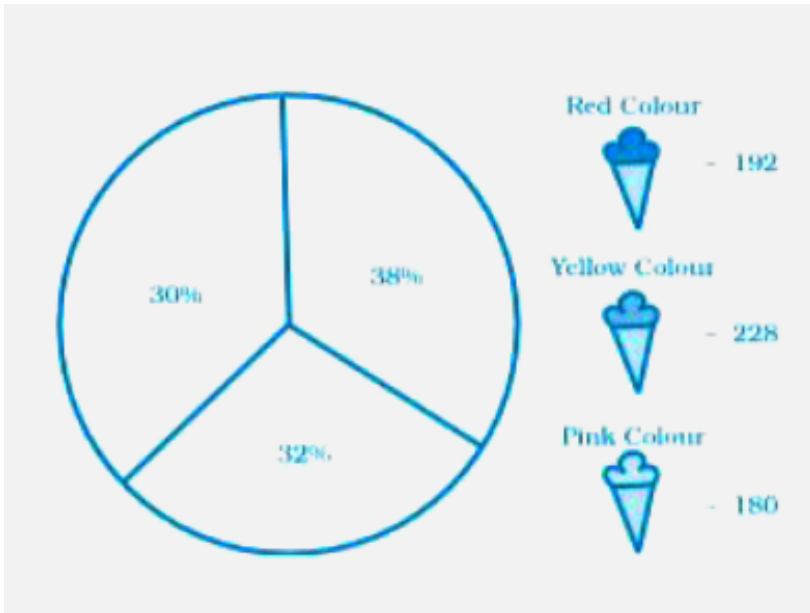
B card bearing number > 7

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66. Identify which symbol should appear in each sector in 113, 114.

Red Colour — 192

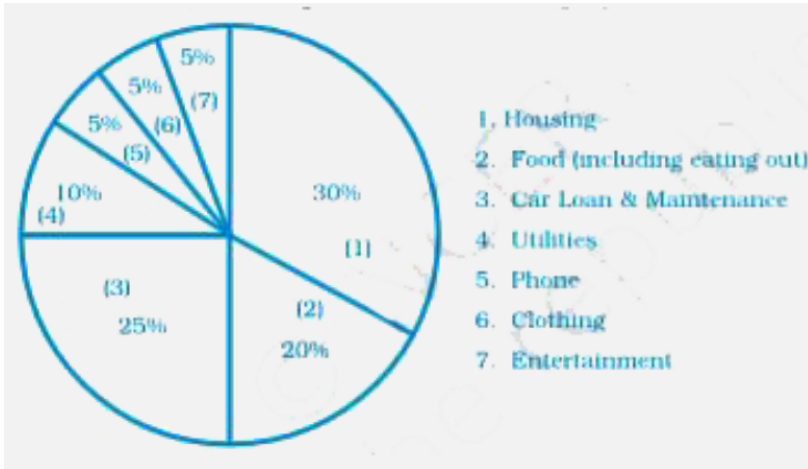Yellow Colour — 228

Pink Colour — 180

30%

38%

32%

67.

▶ Watch Video Solution

68. A financial counselor gave a client this pie chart describing how to budget his income. If the client brings home Rs. 50,000 each month, how

much should he spend in each category?

1. Housing
2. Food (including eating out)
3. Car Loan & Maintenance
4. Utilities
5. Phone
6. Clothing
7. Entertainment

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69. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product.
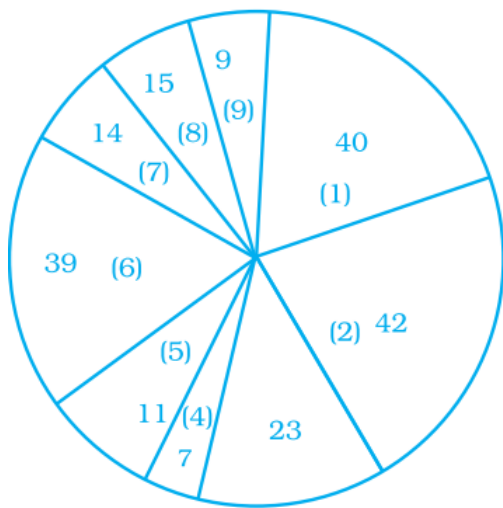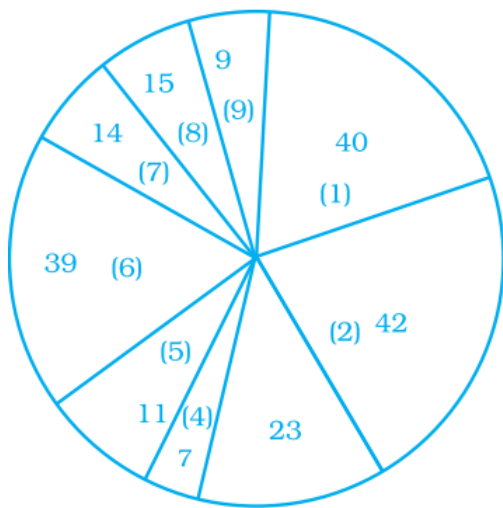
1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous

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

▶ **Watch Video Solution**

70. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product.
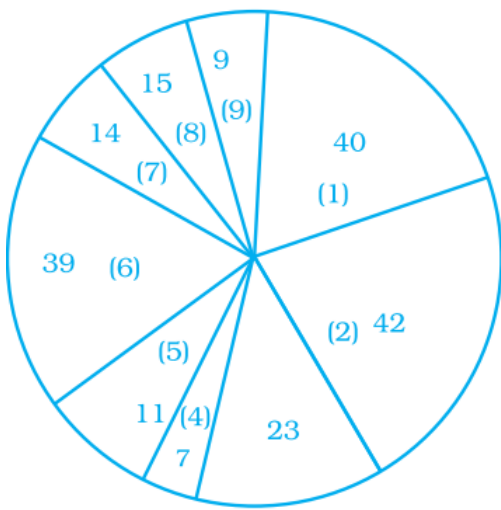
1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous

Which type of media advertising is the least amount of the total?

> ▶ **Watch Video Solution**

71. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product.
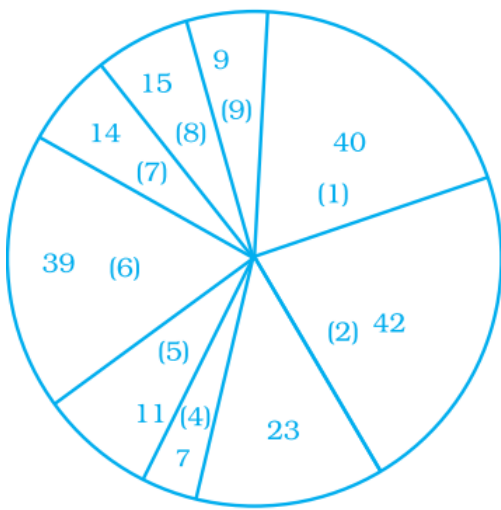
1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous

What per cent of the total advertising amount is spent on direct mail campaigns?

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72. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product.
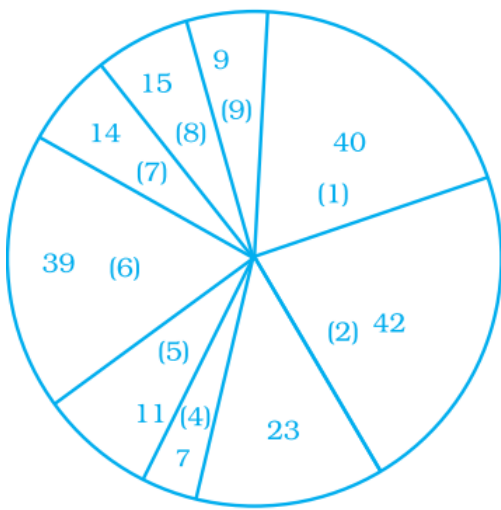
1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous

What per cent of the advertising amount is spent on newspaper and magazine advertisements?

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73. Following is a pie chart showing the amount spent in rupees (in thousands) by a company on various modes of advertising for a product.

1. Television
2. Newspapers
3. Magazines
4. Radio
5. Business papers
6. Direct mail
7. Yellow pages
8. Outdoor
9. Miscellaneous

What media types do you think are included in miscellaneous? Why aren't those media types given their own category?

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