ICSE Class 8 Maths Selina Solutions Chapter 22: In ICSE Class 8 Maths, Chapter 22 on Data Handling from Selina Solutions, you'll learn about organizing and interpreting data. This chapter helps you understand how to collect data, like numbers or measurements, and then organize it using tables, graphs, or charts.

You'll also learn methods to analyze data to find trends or patterns. This helps in making decisions based on facts and figures. Mastering this chapter will strengthen your skills in handling and presenting data effectively.

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling Overview

The solutions for ICSE Class 8 Maths Selina Solutions Chapter 22 on Data Handling are made by subject experts from Physics Wallah.

They explain each step clearly and give examples to help you learn how to organize, understand, and use data well. Using these solutions can help you get better at handling data and do well in your studies.

Data Handling

In mathematics, data handling refers to the process of working with data to organize, analyze, and interpret it effectively. It involves several key aspects:

Data Collection: Gathering numerical or categorical information from various sources, such as surveys, experiments, or real-world observations.

Data Organization: Structuring data into tables, charts, graphs, or diagrams to make it easier to understand and analyze.

Data Analysis: Examining the data to identify patterns, trends, relationships, or outliers. This often involves calculations, statistical methods, and visual representations.

Interpretation: Drawing conclusions and making inferences based on the analyzed data. This step helps in making decisions, predictions, or recommendations.

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling PDF

You can find the PDF link below for ICSE Class 8 Maths Selina Solutions Chapter 22 on Data Handling.

It includes step-by-step solutions prepared by experts to help you understand concepts like organizing data into tables and graphs, analyzing trends, and making informed decisions based on data. Accessing this PDF can greatly enhance your understanding and performance in this chapter.

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling PDF

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling

Below we have provided ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling for the ease of the students –

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling Exercise 22.1

Question 1.

Arrange the following data as an array (in ascending order):

(i) 7, 5, 15, 12, 10, 11, 16

Solution:-

Ascending order = 5, 7, 10, 11, 12, 15, 16

(ii) 6.3, 5.9, 9.8, 12.3, 5.6, 4.7

Solution:-

Ascending order = 4.7, 5.6, 5.9, 6.3, 9.8, 12.3

Question 2.

Arrange the following data as an array (descending order):

(i) 0, 2, 0, 3, 4, 1, 2, 3, 5

Solution:-

Descending order = 5, 4, 3, 3, 2, 2, 1, 0

(ii) 9.1, 3.7, 5.6, 8.3, 11.5, 10.6

Solution:-

Descending order = 11.5, 10.6, 9.1, 8.3, 5.6, 3.7

Question 3.

Construct a frequency table for the following data:

(i) 6, 7, 5, 6, 8, 9, 5, 5, 6, 7, 8, 9, 8, 10, 10, 9, 8, 10, 5, 7, 6, 8

Solution:-

(i)

Date	Tally Marks	Frequency
5	IIII	4
6	IIII	4
7	III	3
8	IIII	5
9	III	3
10	III	3

(ii) 3,2,1,5,4,3,2,5,5,4,2,2,2,1,4,1,5,4

Solution:-

(ii)

Date	Tally Marks	Frequency
1	III	3
2	IIII	5
3	II	2
4	IIII	4
5	IIII	4

 Question 4.

Following are the marks obtained by 30 students in an examination.

15	20	8	9	10
16	17	20	24	30
44	47	38	36	40
27	25	28	30	19
7	11	21	31	41
37	47	23	20	17

Taking class intervals 0-10, 10-20, …… 40-50; construct a frequency table.

Solution:-

Class Intervals	Tally marks	Frequency
0-10	III	3
10-20	IIII II	7
20-30	IIII IIII	9
30-40	IIII I	6
40-50	IIII	5

Question 5.

Construct frequency distribution table for the following data: taking class-intervals 4-6, 6-8, …….. 14-16.

11.5 6.3 7.8 9.2 10.5 4.5, 6 8.3 12.5 15.8

7.4 5.3 8.4 15.2 8.9 9.8 8.25 6.5 5.8 10.5

4.6 6.4 8.9 10.8 12.7 14.2 15.3 11.7 9.9 8.8

6.6 4.3 4.7 9.4 10.1 15.5 14.4 12.2 7.7 5.5

Solution:-

Class Intervals	Tally marks	frequency
4-6	IIII II	7
6-8	IIII III	8
8-10	IIII IIII	10
10-12	IIII I	6
12-14	III	3
14-16	IIII I	6

Question 6.

Fill in the blanks:

(i) Lower class limit of 15-18-is _____

(ii) Upper class limit of 24-30 is _____

(iii) Upper limit of 5-12.5 is _____

(iv) If the upper and the lower limits of a class interval are 16 and 10; the class-interval is _____

(v) If the lower and the upper limits of a class are 7.5 and 12.5; the class interval is _____

Answer:

(i) Lower class limit of 15 – 18 is **15.**

(ii) Upper class limit of 24 – 30 is **30.**

(iii) Upper limit of 5 – 12.5 is **12.5**

(iv) If the upper and the lower limits of a class interval are 16 and 10; the class-interval is **10 – 16**

(v) If the lower and the upper limits of a class are 7.5 and 12.5; the class interval is **7.5 – 12.5**

ICSE Class 8 Maths Selina Solutions Chapter 22 Data Handling Exercise 22.2

Question 1.

Hundred students from a certain locality use different modes of travelling to school as given below. Draw a bar graph.

Bus	Car	Rickshaw	Bicycle	Walk
32	16	24	20	8

Solution:-

Question 2.

Mr. Mirza's monthly income is Rs. 7,200. He spends Rs.1,800 on rent, Rs.2,700 on food, Rs.900 on education of his children; Rs. 1,200 on other things and saves the rest. Draw a pie-chart to represent it.
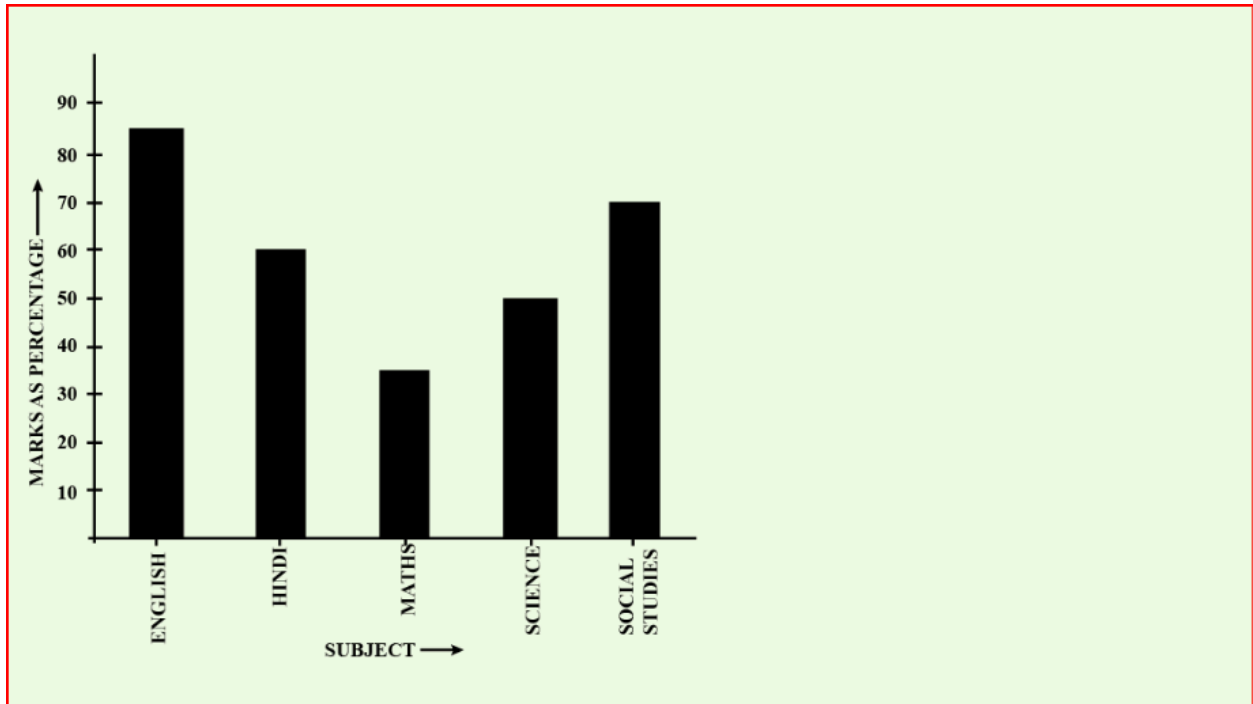
Solution:-

Name of items	Expenditure/saving in Rupees	Central angle
Rent	1800	$\frac{1800}{7200} \times 360° = 90°$
Food	2700	$\frac{2700}{7200} \times 360° = 135°$
Education	900	$\frac{900}{7200} \times 360° = 45°$
Others	1200	$\frac{1200}{7200} \times 360° = 60°$
Saving	600	$\frac{600}{7200} \times 360° = 30°$
Total	7200	360°

Question 3. The percentage of marks obtained, in different subjects by Ashok Sharma (in an examination) are given below.

Draw a bar graph to represent it.

English	Hindi	Maths	Science	Social studies
85	60	35	50	70

Solution:-

Question 4.

The following table shows the market position of different brand of teal leaves.

Brand	A	B	C	D	Others
% Buyers	35	20	20	15	10

Draw it-pie-chart to represent the above information.

Solution:-
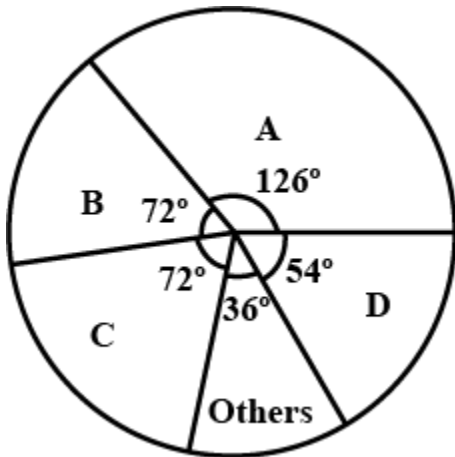
Buyers
%
A 35
B 20
C 20
D 15
Others 36
Total 100

A=35100×360=126°

B=20100×360=72°
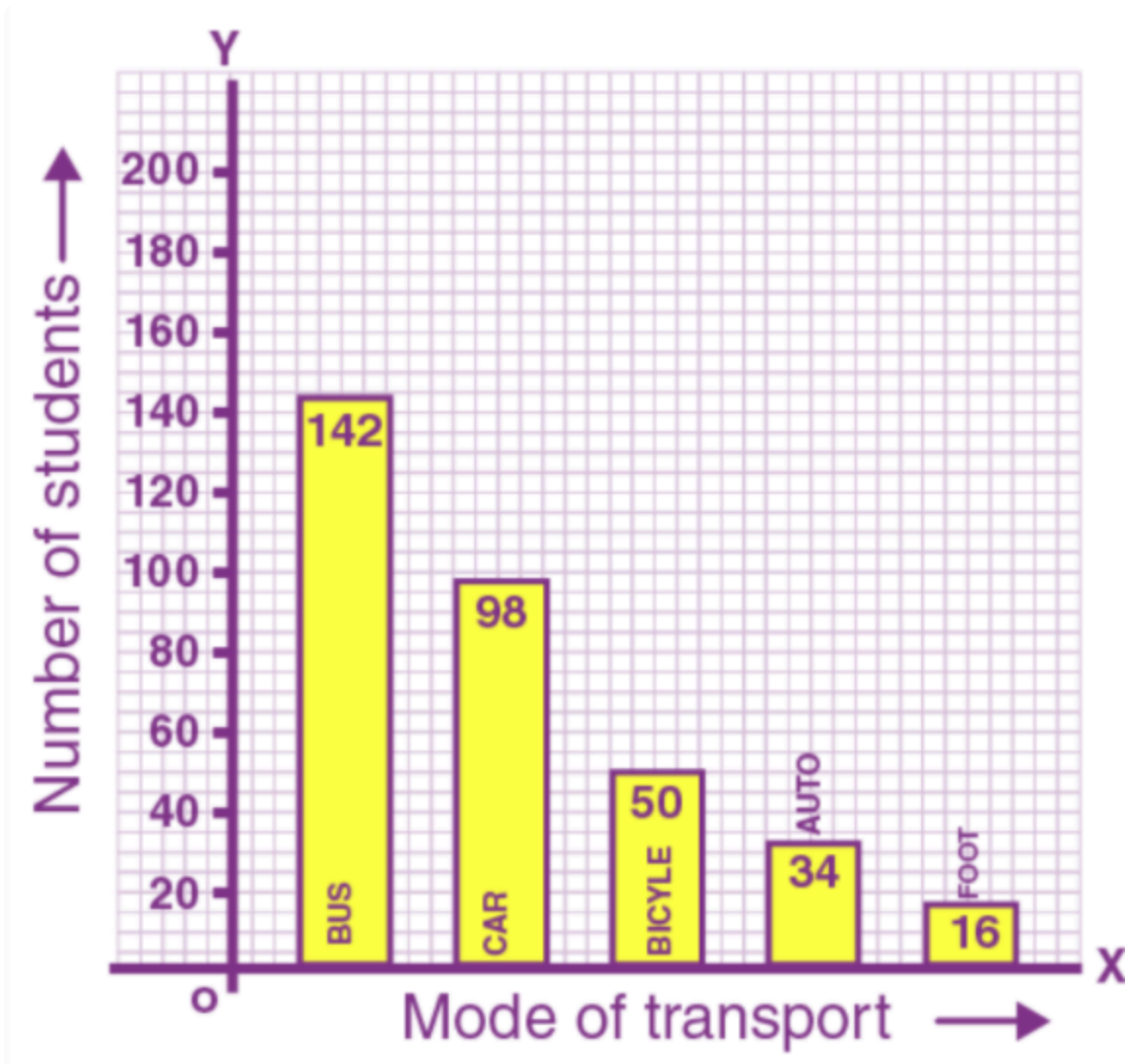C=20100×360=72°

D=15100×360=54°
Others=10100×360=36°

Question 5.

Students of a small school use different modes of travel to school as shown below:

Mode	Bus	Car	Bicycle	Auto	On foot
No. of students	142	98	50	34	16

Draw a suitable bar graph.

Solution:-

The y-axis is labeled "Number of students" and the x-axis is labeled "Mode of transport". Bars show: BUS = 142, CAR = 98, BICYLE = 50, AUTO = 34, FOOT = 16.

Question 6.

For the following table, draw a bar-graph

A	B	C	D	E	F
230	400	350	200	380	160

Solution:-

From the given data, D has the maximum value of 350.
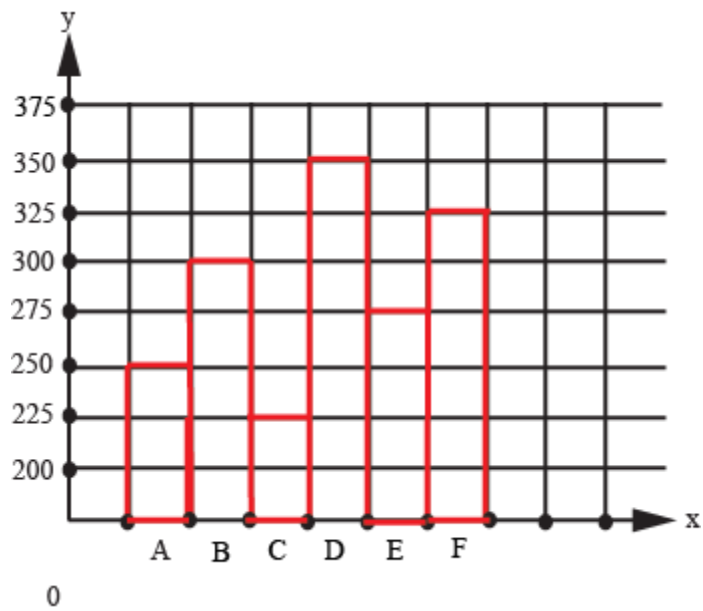
Question 7.

Manoj appeared for ICSE examination 2018and secured percentage of marks as shown in the following table:

Subject	Hindi	English	Maths	Science	Social study
Marks as percent	60	45	42	48	75

Represent the above data by drawing a suitable bar graph.

Solution:-

Question 8.

For the data given above in question number 7, draw a suitable pie-graph.

Solution:-

∵ 60+45+42+48+75=270

∴ Central angle for Hindi $= \frac{60}{270} \times 360° = 80°$

Central angle for English $= \frac{45}{270} \times 360° = 60°$

Central angle for Maths $= \frac{42}{270} \times 360° = 45°$

Central angle for science $= \frac{48}{270} \times 360° = 64°$

And Central angle for social study $= \frac{75}{270} \times 360° = 100°$

Benefits of ICSE Class 8 Maths Selina Solutions Chapter 22

Clear Understanding: The solutions provide clear explanations and examples that help students understand how to organize, analyze, and interpret data effectively.

Step-by-Step Guidance: Students receive step-by-step guidance on solving problems related to data handling, enhancing their problem-solving skills.

Practical Application: By practicing with these solutions students can apply mathematical concepts to real-world scenarios involving data, improving their ability to make informed decisions.

Concept Reinforcement: The solutions reinforce key concepts such as data representation (using tables, graphs, etc.), data analysis (finding averages, trends), and basic probability, ensuring a strong foundation in these areas.

Preparation for Exams: Using these solutions helps students prepare thoroughly for exams by providing comprehensive coverage of the chapter's topics and helping them practice questions of varying difficulty levels.