Chapter- 21

Data handling

STUDY NOTES

At the end of this chapter, you will be able to:

- **Read and understand pictographs, bar graph and pie chart**
- **Answer the questions related to the charts and graphs.**
- **Draw bar graph and pie chart.**

What is data handling?

Information collected in the form of numerical figures is called data.
Data handling is the process of gathering, recording,
And presenting information in a way that is easy to analyze.

In short it means handling data efficiently.

Types of ways of representing data:

- **Pictograph**
- **Bar graph**
- **Pie chart**

➢ Pictograph:

In a pictograph, pictures or figures are used to represent data according to scale.

Mode of transport	Number of students
Bus	7
Car	4
Walking	6
Bycycle	3

Key : 1 Represents 4 children

A pictograph representing number of children who use different modes of transport is shown in the above pictograph.

Read the graph carefully and answer the following questions.

1. **Which is most used mode of transport?**

   ANS. Bus

2. **Which is the least used mode of transport?**

   ANS. Bicycle

3. **How many children walk to the school?**

   ANS. 24

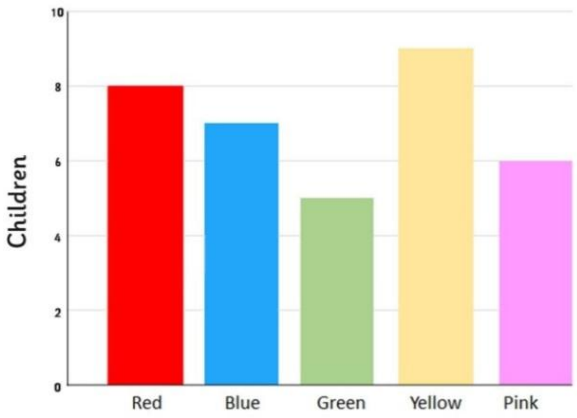
4. **What is the number of children who use car and bicycle altogether?**

   ANS. 28

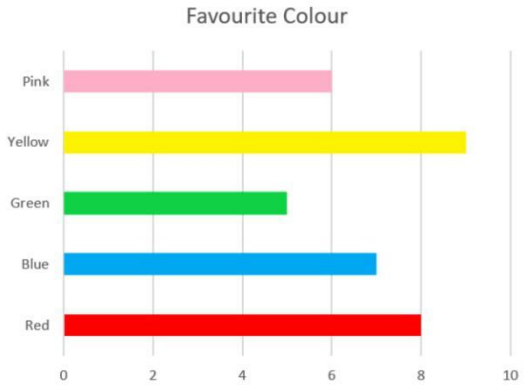
➢ Bar Graph.

For the representation of numerical data, bar graphs are drawn on the graph papers, by choosing a suitable scale.

The bars are rectangular in shape having a standard width. Bar graphs can be drawn both Horizontally and Vertically.



VERTICAL BAR GRAPH



HORIZONTAL BAR GRAPH

Read the bar graph carefully and answer the following questions.

1. Which colour is the most favourite among the children?

   ANS. Yellow

2. Which colour is the least favourite?

   ANS. Green

3. How many children like red colour?

   ANS. 8

4. How many children like pink and blue altogether?

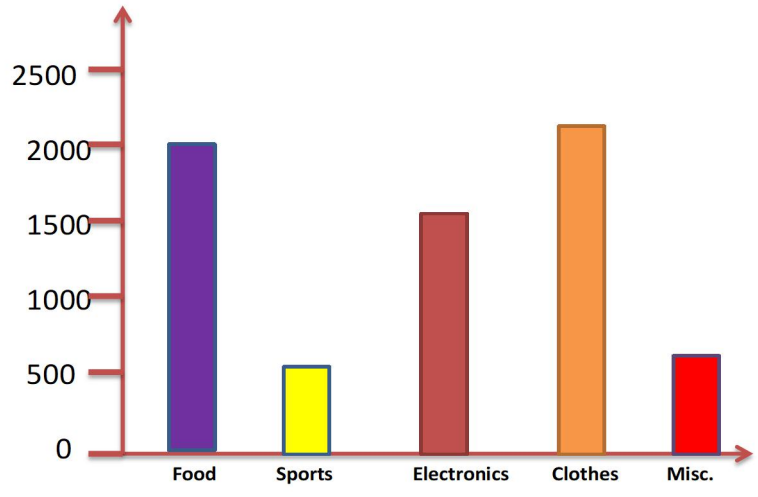
   ANS.14

DRAWING BAR GRAPH.

1. Draw the vertical and horizontal axes.
2. Draw the bars of equal width to represent the same items of the data.
3. Both the axes should be marked suitably according to the range of data.

Items	Food	Sports	Electronics	Clothes	Misc.
No. of customers	2000	500	1500	2200	600

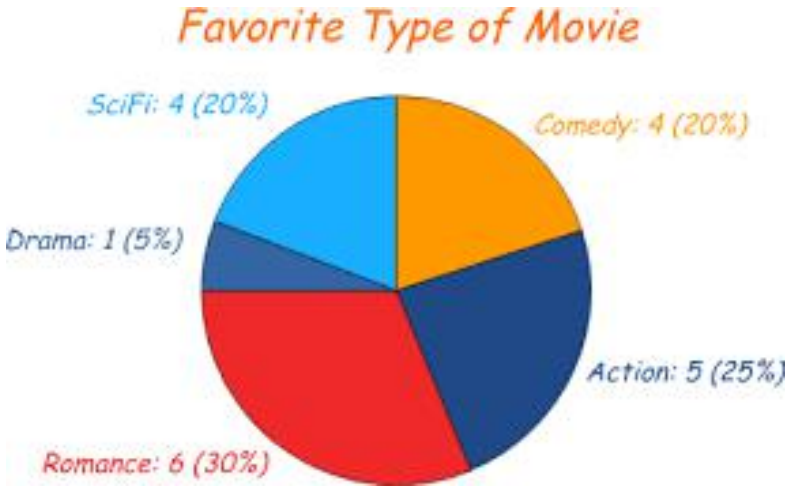
Draw a bar graph to represent the sale of a shop.



Scale = 1 cm = 500 customers.

➢ Pie chart :

An interesting way of representing data is the pie chart or circular graph. It's like a cake, which can be divided into pieces or slices. Each slice shows a fraction of total amount.



DRAWING BAR GRAPH.

1. **Using a compass, draw a circle of convenient size.**
2. **Draw a radius.**
3. **Find the angles to be drawn.**
4. **Using protractor draw the angles to represent the data.**

Memory capsule – A circle has a total of 360 ° all way around the center.

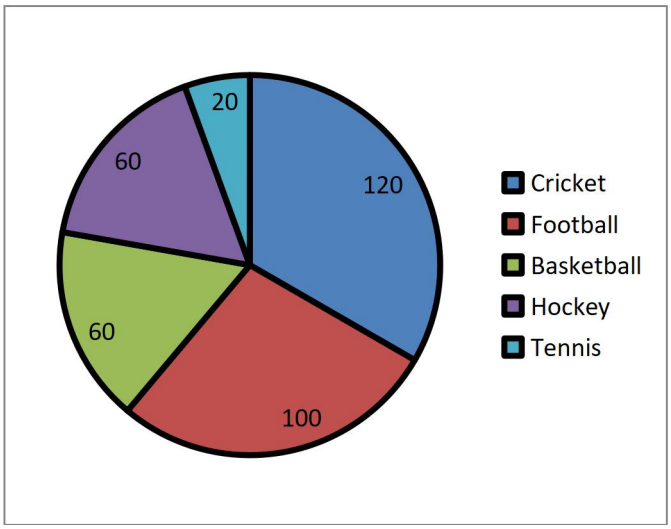
Sl. No.	Games	No. of students.
1	Cricket	600
2	Football	500
3	Basketball	300
4	Hockey	300
5	Tennis	100
		1800

Draw a pie chart for the above table showing the different games played by the students of a school.

Let's find the angles:

DEGREE OF ANGLE= $\frac{Value\ given}{Total\ value}$ **x 360°**

Sl. No.	Games	No. of students.	Angles
1	Cricket	600	$360° \times \frac{600}{1800} = 120°$
2	Football	500	$360° \times \frac{500}{1800} = 100°$
3	Basketball	300	$360° \times \frac{300}{1800} = 60°$
4	Hockey	300	$360° \times \frac{300}{1800} = 60°$
5	Tennis	100	$360° \times \frac{100}{1800} = 20°$



1. **Which game is the most popular?**
   Ans. Cricket

2. **Which game is the least popular game?**
   Ans. Tennis

3. **Which two games are equally popular?**
   Ans. Basketball and Hockey.

WHERE DO WE USE DATA HANDLING?

1. In libraries to keep a record of books
2. Recording water levels in the rivers
3. Population growth
4. Recording economical income and growth
5. Various surveys.