



Data Analysis

Data Handling

Data handling is the process of collecting, organizing, and analyzing data. It involves managing, storing, and processing data in a way that ensures its accuracy and reliability.

Data

Any collection of facts, numbers, measures, observations or other details of things that give information about those things is called data. The data that is collected in its original form is called raw data. Each element in raw data is called observation.

Types of data

- Primary Data:** Primary data is original information gathered directly from the source.
- Secondary Data:** Secondary data is information that has already been collected, processed, and published by someone else for a different purpose, which you then use for your own research or analysis.

Graphical representation of data

Pictograph

A pictograph shows the frequency of data in the form of pictures or symbols. Each image or symbol can depict one or more units of data.

For example, a pictograph can represent the votes cast for different flavors of ice cream that students like, with each figure representing 4 votes. Pictographs are helpful in answering the following questions:

Different flavours of cake	
Vanilla	   
Chocolate	
Strawberry	 
Red Velvet	  
Key:  = 4 Votes	

Pictographs help in answering the following questions:

- Which flavour of ice cream has been voted for by the maximum number of students?

Answer: Vanilla flavored ice cream has been voted for by the maximum number of students.

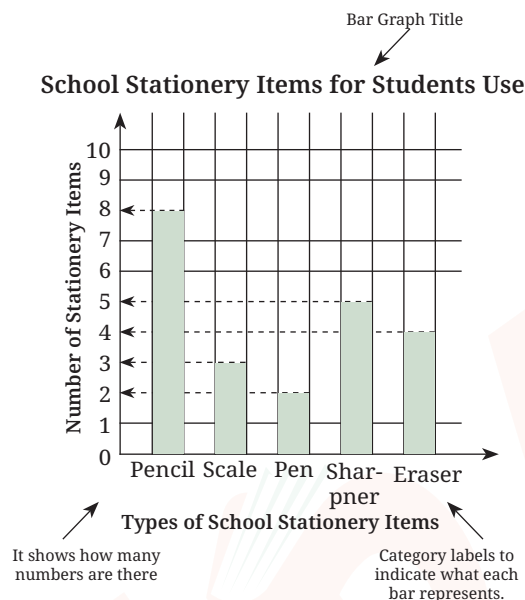
- What are the total votes cast for different ice cream flavors?

Answer: Since 1 symbol = 4 votes, Total Symbols = $3.5 + 1 + 1.5 + 3 = 9$ symbols

Total Votes = $9 \times 4 = 36$ votes

Bar Graph: A bar graph is a chart that represents data with rectangular bars of equal width and varying lengths, depending on the values.

Stationery Items	Pencil	Scale	Pen	Sharpner	Eraser
No. of Stationery	8	3	2	5	4



Answer the following questions on the basis of Bargraph.

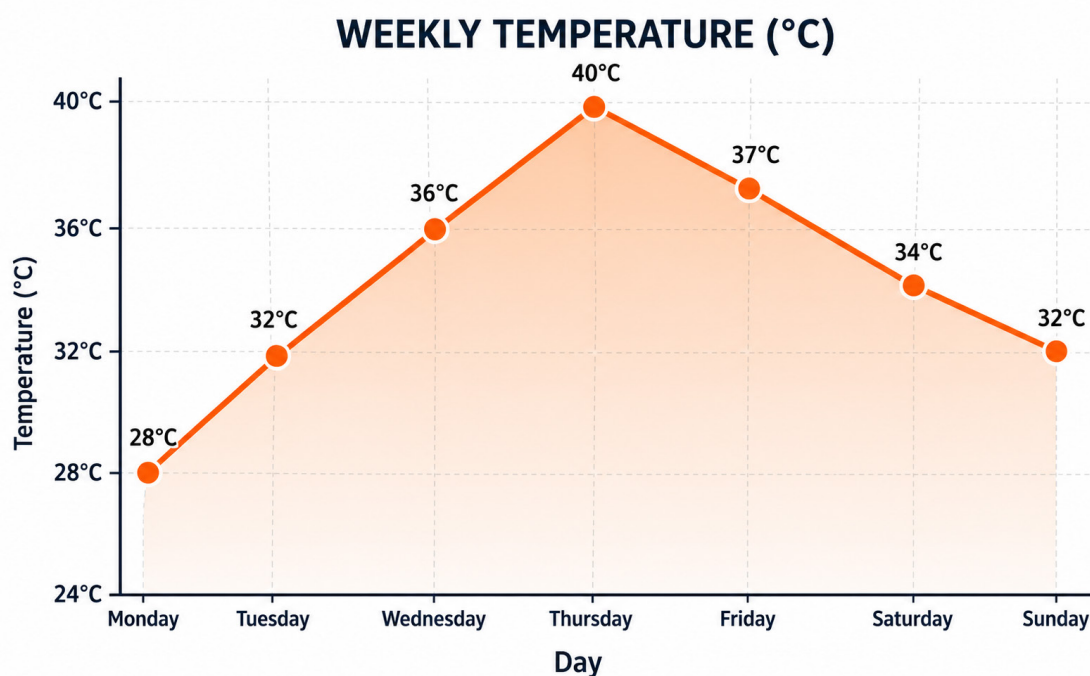
(i) Which type of school supply is the lowest?

Sol: The number of pens supplied is the lowest.

(ii) Which type of school supply together yields a value of 12?

Sol: The supply of pencil and eraser together yields a total value of 12.

Line Chart (Line Graph): Line charts (also called line graphs) are used to show how a value changes over a period of time. Instead of bars, we draw dots on the graph and connect them with straight lines.



Answer the following questions on the basis of a line chart.

(i) What is the temperature on Thursday?

Sol: The temperature on Thursday is 40°C .

(ii) On which day is the temperature 37°C ?

Sol: The temperature on Friday is 37°C .

