Bar Graph

Understanding: Bar Graph

- A bar graph is a visual representation of data using rectangular bars

- The length or height of each bar is proportional to the value it represents

- Bar graphs are used to compare quantities across different categories

- X-axis (horizontal) typically represents the categories, while the Y-axis (vertical) represents the values

- Bar graphs can be vertical or horizontal depending on how the bars are drawn

Important Points

- Bar graphs help in comparing data in a clear and easy-to-read way

- Bars should be of equal width and spaced evenly

- Label both axes and give the graph a title for clarity

Examples with Solutions

Example: The following table gives the data about the number of hours spent on various activities by Surbhi in a day:

Activities	Number of hours
College	5
TV	2
Gadgets and websites	3
Sleeping	6
Others	8

Solution: Draw a bar graph to represent the data

- **Step 1:** Construct two perpendicular lines – horizontal and vertical on a graph paper. Name the horizontal as X-axis and vertical as Y-axis.

- **Step 2:** Take 'Activities' along X-axis and its number of hour frequency along Y-axis.

- **Step 3:** Choose a uniform width and gap the bars along x-axis.

- **Step 4:** Choose a suitable scale to determine the height of the bar. Here, take 1cm as 1 hour.

- **Step 5:** The bar graph showing the number of hours spent on an activity is as Follows:
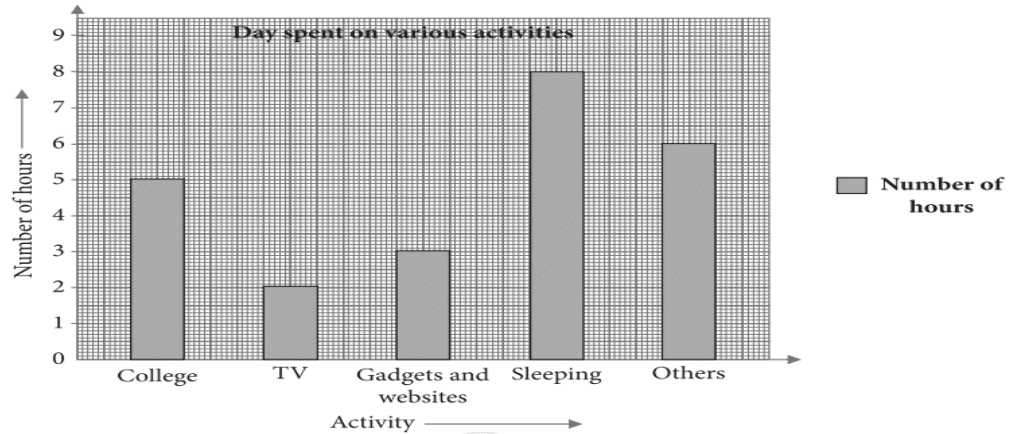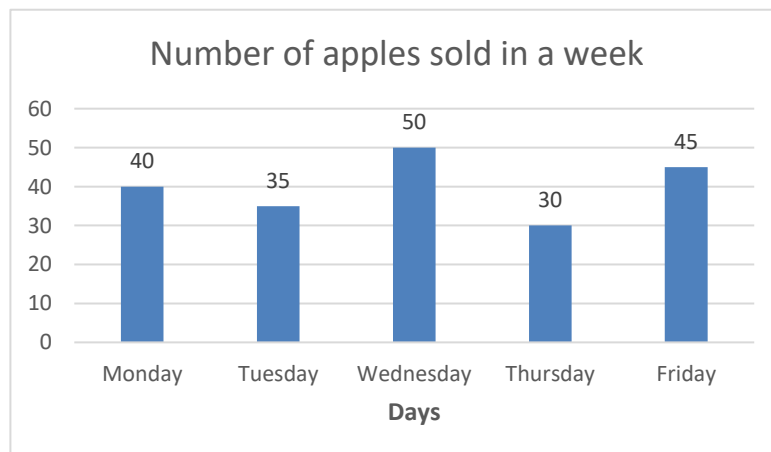

Example

Data: Number of apples sold in a week:

Monday – 40, Tuesday – 35, Wednesday – 50, Thursday – 30, Friday – 45

Draw a bar graph for the number of apples sold.

- X-axis: Days of the week

- Y-axis: Number of apples (0 to 60)

- Bars of heights 40, 35, 50, 30, and 45

Bar graph clearly shows daily sales comparison
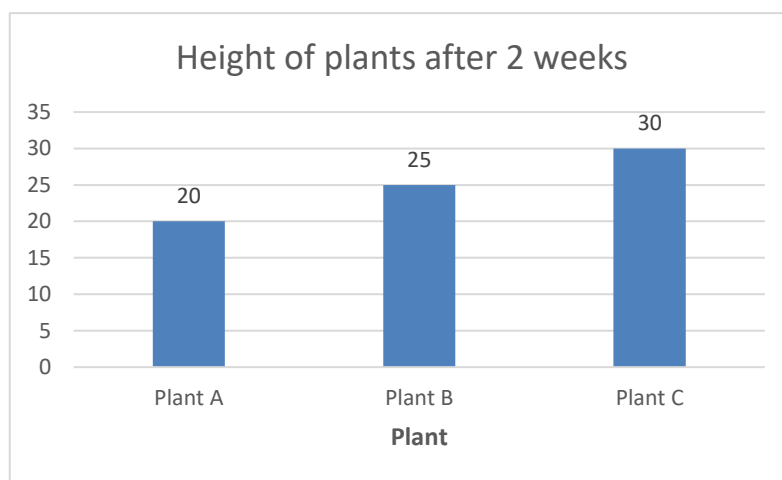
Example

Data: Height of plants after 2 weeks:

Plant A – 20 cm, Plant B – 25 cm, Plant C – 30 cm

Draw a bar graph to represent the height of plants.

- X-axis: Plant A, Plant B, Plant C

- Y-axis: Height in cm (0 to 35)

- Bars of heights 20, 25, and 30 for each plant

Bar graph visually compares the growth of plants
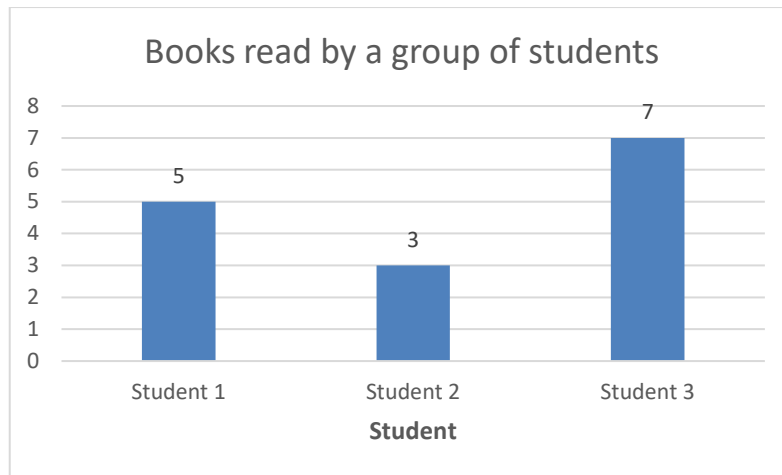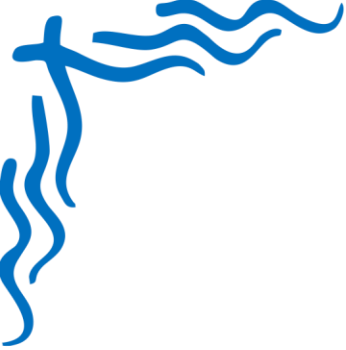

Height of plants after 2 weeks

Example

Data: Books read by a group of students:

Student 1 – 5 books, Student 2 – 3 books, Student 3 – 7 books

Draw a bar graph for the number of books read.

- X-axis: Student 1, Student 2, Student 3

- Y-axis: Number of books (0 to 8)

- Bars of heights 5, 3, and 7

Bar graph clearly shows the number of books read by each student

Books read by a group of students
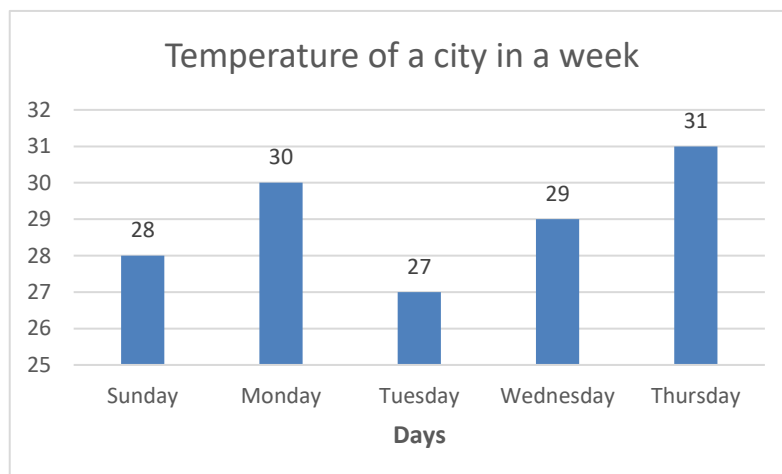
Example

Data: Temperature of a city in a week:

Sunday – 28°C, Monday – 30°C, Tuesday – 27°C, Wednesday – 29°C, Thursday – 31°C

Draw a bar graph for the weekly temperatures.

- X-axis: Days of the week
- Y-axis: Temperature (25°C to 35°C)
- Bars of heights 28, 30, 27, 29, and 31

Bar graph clearly shows temperature variations throughout the week

Temperature of a city in a week

Summary Points

- A bar graph visually represents data with rectangular bars
- The length/height of the bar is proportional to the value
- X-axis represents categories and Y-axis represents values
- Bar graphs help compare data across different categories