Construction of Bar Graphs

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Α.	Choose the Correct Answer:		
	1. What is the first step in constructing a bar graph?		
	a) Drawing the bars	b) Deciding the scale	
	c) Collecting and organizing data	d) Labelling the x-axis	
	2. In a bar graph, the height of each bar represents:		
	a) The name of the item	b) The frequency or value of data	
	c) The colour of the graph	d) The label of the graph	
	3. Which of the following is not nec	essary for a bar graph?	
	a) Title of the graph	b) Equal width bars	
	c) Gaps between bars	d) Curved lines	
	4. If the data values are large numbers, the scale should be:		
	a) Smaller than 1	b) Equal to 0	
	c) Properly chosen to fit data	d) Always 1	
	5. Bar graphs are mainly used to she	ow:	
	a) Shapes	b) Directions	
	c) Comparison of data	d) Mathematical formulas	
В.	Write the Missing Terms to Complete the Sentences:		
	1. A bar graph is a repres	sentation of data using bars.	
	2. Bars in a bar graph are drawn with equal		
	 The space between the bars must be The horizontal axis is usually called the axis. 		
	5. The title of a bar graph helps the	reader understand what the graph is	
С.	Mark each sentence with a True	(✔) or False (Ⅹ):	
	1. Bar graphs can be drawn both hor	rizontally and vertically.	
	2. All bars in a bar graph should be of different widths.		
	3. A bar graph must always start from zero on the scale.		
	4. Labels and headings are optional in bar graphs.		

5. A bar graph shows the relationship between two variables.

D. Figure out the answers to these questions:

- 1. A shopkeeper sold 40 pens on Monday, 60 on Tuesday, 50 on Wednesday, 70 on Thursday, and 30 on Friday. Construct a bar graph to show this data.
- 2. A class conducted a survey of students' favorite fruits: 15 chose apples, 10 chose bananas, 20 chose mangoes, and 5 chose grapes. Represent this using a bar graph on graph paper.
- 3. Observe the bar graph given below (provide your own image or imagine a sample) and answer:
 - Which item had the highest frequency?
 - How many items had a frequency more than 20?
- 4. Why is selecting the correct scale important in a bar graph? Explain briefly.
- 5. Look at this data and decide the best scale to represent it in a bar graph:
 - Data: 5, 10, 15, 20, 25
- 6. A student made a bar graph with different colors for each bar. Is this necessary? Justify your answer.
- 7. You are given a bar graph showing daily temperature for a week. How can you identify the coldest day and hottest day?
- 8. Write three advantages of using bar graphs over simple tables.

E. Challenge yourself with these questions:

1. Create a bar graph for the following data and give it a suitable title:

Rainfall in cm during the week:

Monday - 2 cm, Tuesday - 0 cm, Wednesday - 1 cm, Thursday - 3 cm, Friday - 5 cm.

- 2. Imagine your class conducted a survey about favorite sports. What steps will you follow to prepare a bar graph from the collected data?
- 3. What mistakes should be avoided while constructing a bar graph?
- A bar graph shows the number of books read by students in five months. The height of bars are: Jan – 4, Feb – 5, Mar – 3, Apr – 6, May – 2.

Without drawing, which month had the second-highest reading?

5. If two bars have the same height, what does it represent? Explain with an example.