

Data Handling and Presentation

Practice Worksheet — Set 1

Name:	Class: 6	Section:	Date:
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Instructions: Read each question carefully and answer in the space provided. Total Marks: 45

Section A: Fill in the Blanks (10 × 1 = 10 Marks)

- Any collection of facts, numbers, measures or observations that gives information is called _____.
- The number of times a particular observation occurs is called its _____.
- A _____ mark is used to count data quickly, grouped in sets of five.
- In a pictograph, a symbol or picture is used to represent _____.
- A bar graph uses _____ of uniform width, with equal spacing between them, to represent data.
- The key or _____ of a pictograph tells us what one symbol stands for.
- Data arranged in a table using tally marks and frequencies is called a _____ table.
- The process of gathering information from people or sources is called _____ of data.
- In a bar graph, the _____ line usually shows the categories being compared.
- A bar graph with horizontal bars is generally preferred to compare lengths that run _____ to the ground.

Section B: Multiple Choice Questions (10 × 1 = 10 Marks)

- Which of the following is the best example of data?
(a) A single colour (b) A list of the favourite colours of all students in a class (c) A drawing of a colour wheel (d) A crayon
- A tally mark for the count of five is usually shown as:
(a) Five separate lines only (b) Four lines with a fifth line drawn across them (c) A dot (d) A circle
- In a pictograph, if 1 symbol = 5 books, then 4 symbols represent:
(a) 9 books (b) 20 books (c) 4 books (d) 45 books
- In a bar graph, the vertical axis generally shows:
(a) Names of categories (b) Frequency or values (c) Colours used (d) The title only
- Which of these tools helps organise raw, jumbled data for easy counting?
(a) A story (b) A frequency table with tally marks (c) A drawing (d) A poem
- The scale of a bar graph or pictograph tells us:
(a) The colour of the bars (b) What one unit length or symbol represents (c) The name of the artist (d) Nothing important
- If the scale of a bar graph is 1 unit length = 10 books, a bar of height 4 units represents:
(a) 4 books (b) 14 books (c) 40 books (d) 400 books
- A half symbol in a pictograph where 1 full symbol = 10 children represents:
(a) 10 children (b) 5 children (c) 2 children (d) 20 children
- A graph that represents data using small pictures or symbols is called a:

(a) Bar graph (b) Pictograph (c) Line graph (d) Pie chart

10. The category with the highest frequency in a data set is called the:

(a) Least common category (b) Most popular / most common category (c) Average category (d) Odd category

Section C: True or False (10 × 1 = 10 Marks)

1. Data means any collection of facts, numbers or observations that give information.
2. A tally mark for the count of four is shown with a line drawn through four earlier marks.
3. In a pictograph, every symbol must always represent exactly one unit.
4. The scale used in a bar graph or pictograph must always be clearly mentioned.
5. Bars in a bar graph are usually drawn with different widths to show different values.
6. A frequency table helps organise scattered data in a systematic, easy-to-read way.
7. Tally marks are grouped in bundles of five for easy counting.
8. Pictographs become difficult to draw neatly when the frequencies are very large or not exact multiples of the scale.
9. In a bar graph, the height or length of a bar has no connection with the value it shows.
10. Data handling involves collecting, organising, presenting and interpreting data.

Section D: Match the Following (5 × 1 = 5 Marks)

Column A	Column B
1. Pictograph	a. Number of times an observation occurs
2. Bar graph	b. Uses bars of uniform width and equal spacing
3. Tally mark	c. A mark used to count data in groups of five
4. Frequency	d. Tells us what one unit or symbol represents
5. Scale	e. Represents data using small pictures or symbols

Section E: Solve the Following (10 × 1 = 10 Marks)

1. The marks obtained (out of 10) by 10 students in a class test are: 5, 7, 8, 5, 6, 7, 9, 8, 7, 6. Prepare a frequency table for this data using tally marks.
2. Using the frequency table you made in Q1, write the mark obtained by the maximum number of students.
3. A pictograph shows the sale of apples using the symbol , where 1  = 20 apples. If a shop shows 3 full symbols and 1 half symbol, how many apples were sold?
4. In a bar graph, 1 unit length represents 5 students. If a bar for 'Class 6A' is 6 units tall, how many students does it represent?
5. Ten students named their favourite colour as follows: Red, Blue, Red, Green, Blue, Red, Yellow, Blue, Green, Red. Prepare a frequency table for this data.
6. Using your table from Q5, state which colour was chosen by the greatest number of students.

7. The number of story books borrowed on three days was: Monday – 4, Tuesday – 6, Wednesday – 2. Draw a simple pictograph using the scale 1 symbol = 2 books.
8. A bar in a bar graph has a height of 8 units, and the scale used is 1 unit length = 100 kg. Find the weight represented by this bar.
9. Arrange the following data in ascending order and state the largest and the smallest value: 12, 8, 15, 9, 20, 8, 15.
10. In a class survey, 15 students said they like cricket, 10 like football, and 5 like badminton. Represent this information using tally marks in a table.

Answer Key — Practice Worksheet — Set 1**Section A: Fill in the Blanks**

1. data
2. frequency
3. tally
4. one unit (a fixed number)
5. bars
6. scale
7. frequency distribution
8. collection
9. horizontal
10. parallel

Section B: Multiple Choice Questions

1. (b) A list of the favourite colours of all students in a class
2. (b) Four lines with a fifth line drawn across them
3. (b) 20 books
4. (b) Frequency or values
5. (b) A frequency table with tally marks
6. (b) What one unit length or symbol represents
7. (c) 40 books
8. (b) 5 children
9. (b) Pictograph
10. (b) Most popular / most common category

Section C: True or False

1. True
2. False
3. False
4. True
5. False
6. True
7. True
8. True
9. False
10. True

Section D: Match the Following

1-e 2-b 3-c 4-a 5-d

Section E: Solve the Following

1. Marks: 5($||=2$), 6($||=2$), 7($|||=3$), 8($||=2$), 9($|=1$). Table: 5 $\rightarrow$ 2, 6 $\rightarrow$ 2, 7 $\rightarrow$ 3, 8 $\rightarrow$ 2, 9 $\rightarrow$ 1 (total 10).
2. 7 marks (frequency 3, the highest).
3. $3 \times 20 + 10 = 70$ apples.
4. $6 \times 5 = 30$ students.
5. Red $\rightarrow$ 4, Blue $\rightarrow$ 3, Green $\rightarrow$ 2, Yellow $\rightarrow$ 1 (total 10).
6. Red (chosen by 4 students).
7. Monday: 2 symbols; Tuesday: 3 symbols; Wednesday: 1 symbol (scale: 1 symbol = 2 books).
8. $8 \times 100 = 800$ kg.
9. Ascending order: 8, 8, 9, 12, 15, 15, 20. Largest = 20, Smallest = 8.

10. Cricket:  (15); Football:  (10);
- Badminton:  (5).

Data Handling and Presentation

Practice Worksheet — Set 3

Name:	Class: 6	Section:	Date:
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Instructions: Read each question carefully and answer in the space provided. Total Marks: 45

Section A: Fill in the Blanks (10 × 1 = 10 Marks)

1. The word 'data' refers to facts, figures or _____ collected for a purpose.
2. A _____ table shows each observation along with the number of times it occurs.
3. In a pictograph, the _____ or key must always be shown so that the reader understands its meaning.
4. If 1 symbol = 4 tractors and a village shows 2 symbols, it has _____ tractors.
5. A bar graph with bars running left to right is called a graph with _____ bars.
6. Before drawing a bar graph, we must decide on a suitable _____ so that the graph fits neatly on the page.
7. The length or height of a bar in a bar graph represents its _____.
8. When data is very large, using a _____ (a number greater than 1) makes pictographs and bar graphs easier to draw.
9. Reading a bar graph or pictograph carefully helps us make correct _____ about the data.
10. Artistic pictures used to present data attractively are called _____, but they must not distort the facts.

Section B: Multiple Choice Questions (10 × 1 = 10 Marks)

1. Which of the following would need actual data collection to answer?
(a) What is the capital of India? (b) What is the most popular sport in your class? (c) How many days are there in a week? (d) What is 5 + 5?
2. A frequency table is most useful for:
(a) Drawing pictures only (b) Organising counts of repeated observations (c) Writing a story (d) Painting a picture
3. If a pictograph shows 2.5 symbols and 1 symbol = 10 people, the number of people shown is:
(a) 12 (b) 25 (c) 20 (d) 15
4. Which axis of a bar graph usually shows numeric values such as frequency?
(a) Horizontal axis (in most cases) (b) Vertical axis (in most cases) (c) Neither axis (d) Both show only names
5. A bar graph comparing the lengths of rivers is best drawn with:
(a) Vertical bars only (b) Horizontal bars, since length is a horizontal measure (c) No bars at all (d) Circles
6. Two bars of the same height in a bar graph indicate:
(a) Equal frequencies/values (b) Unequal frequencies (c) An error in the graph (d) Nothing in particular
7. Which of these is the smallest unit used while counting with tally marks?
(a) A group of ten (b) A single stroke '|' (c) A group of five only (d) A circle

8. A survey collecting the number of hours students sleep is an example of:
 (a) Guessing (b) Data collection (c) A bar graph directly (d) A pictograph directly
9. The main purpose of choosing a good scale for a graph is to:
 (a) Make the graph fit neatly and be easy to read (b) Make the graph colourful (c) Reduce the number of categories (d) Avoid using tally marks
10. Which statement about pictographs is correct?
 (a) They can never use half symbols (b) They use pictures to represent data, with a fixed scale (c) They are the same as bar graphs (d) They cannot have a title

Section C: True or False (10 × 1 = 10 Marks)

- Asking classmates about their favourite games is an example of collecting data.
- A frequency table can only be made using pictures, never using tally marks.
- Every pictograph must clearly show its scale or key.
- A pictograph with the key '1 symbol = 10' can never show 25 using a half symbol.
- In a bar graph, taller or longer bars usually mean greater frequency or value.
- Two categories can have the same frequency in a data set.
- Tally marks are always written in groups of ten.
- A well-chosen scale makes a graph easier to read and fit on the page.
- Horizontal bar graphs are commonly used to compare lengths like the lengths of rivers.
- Making data presentations attractive is more important than keeping them accurate.

Section D: Match the Following (5 × 1 = 5 Marks)

Column A	Column B
1. Vertical bar graph	a. Best for comparing heights
2. Horizontal bar graph	b. Best for comparing lengths parallel to the ground
3. Frequency	c. Count of an observation in a data set
4. Data collection	d. Gathering facts, figures or opinions
5. Half symbol in pictograph	e. Represents half the value of one full symbol

Section E: Solve the Following (10 × 1 = 10 Marks)

- The number of goals scored by a football team in 5 matches was: 2, 0, 3, 2, 1. Prepare a frequency table for this data.
- From Q1, in how many matches did the team score exactly 2 goals?
- A pictograph uses  = 5 books. Section A shows 3 symbols, Section B shows 4.5 symbols. Find the number of books in each section.
- From Q3, find the total number of books in both sections together.

5. A bar graph shows the height of 4 plants (in cm): Plant A – 12, Plant B – 18, Plant C – 9, Plant D – 15. If the scale is 1 unit = 3 cm, find the bar height (in units) for Plant B.
6. Arrange the plant heights from Q5 in ascending order.
7. In a survey of 25 students about their favourite subject, the tally marks were: Maths |||| |||| |, Science |||| |||, EVS |||| |. Find the frequency of each subject.
8. From Q7, which subject is the least popular, and what is its frequency?
9. A pictograph shows rainfall using the key '🌧 = 20 mm'. If a month shows 3.5 symbols, find the rainfall in mm.
10. The number of chairs in 5 classrooms is: 30, 28, 32, 28, 30. Find the frequency of classrooms having exactly 28 chairs.

Answer Key — Practice Worksheet — Set 3**Section A: Fill in the Blanks**

1. observations/numbers
2. frequency
3. scale
4. 8
5. horizontal
6. scale
7. frequency/value
8. scale
9. inferences/conclusions
10. infographics

Section B: Multiple Choice Questions

1. (b) What is the most popular sport in your class?
2. (b) Organising counts of repeated observations
3. (b) 25
4. (b) Vertical axis (in most cases)
5. (b) Horizontal bars, since length is a horizontal measure
6. (a) Equal frequencies/values
7. (b) A single stroke '|'
8. (b) Data collection
9. (a) Make the graph fit neatly and be easy to read
10. (b) They use pictures to represent data, with a fixed scale

Section C: True or False

1. True
2. False
3. True
4. False
5. True
6. True
7. False
8. True
9. True
10. False

Section D: Match the Following

- 1-a 2-b 3-c 4-d 5-e

Section E: Solve the Following

1. $0 \rightarrow 1$, $1 \rightarrow 1$, $2 \rightarrow 2$, $3 \rightarrow 1$ (total 5 matches).
2. 2 matches.
3. Section A = $3 \times 5 = 15$ books; Section B = $4.5 \times 5 = 22.5 \rightarrow 22-23$ books (typically shown as 22 or 23 depending on rounding used).
4. $15 + 22$ (or 23) $\approx 37-38$ books.
5. $18 \div 3 = 6$ units.
6. Ascending order: 9, 12, 15, 18.
7. Maths = 11, Science = 8, EVS = 6 (total 25).
8. EVS is least popular, with a frequency of 6.
9. $3.5 \times 20 = 70$ mm.
10. 2 classrooms (28 chairs each).

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