6th – Data Handling

Data: A data is a collected of number gathered to give same information.
Raw Data: The data that has been collected in the original from is called raw data. For example, the marks obtained by 50 students in the social studies exam are 60, 40, 35, 27, 67, 72, 40, 37, 45, 50, and 52 so on up to 50 items. This collection of data is raw data.
Observation: Each of the items in the raw data is called an observation.
Collection of Data: The starting point of any investigation is the collection of data.
Types of Data: There are two types of data:
1. **Primary Data:** When data is the collection directly from the source, it is called primary data.
2. **Secondary Data:** The data collected from secondary sources is called secondary data.
Pictograph: represents a given data in the form of pictures.
Organisation of Data: organised data become information. Understanding and analyzing the data become easier when it is represented by picture or table.
Frequency: The tally mark represents the number of time that particular situation happened. This is called the frequency.
Bar Graph: this method is another way of representing data. It is easy and less time consuming as compared to pictograph. Here we use bars of equal width and spacing to represent the data. These bars can be represented horizontally or vertically on the graph paper.

Exercise:

1. Seema wanted to find out about the type of pets and the number of students who have pets. She found that 24 of her classmates have pets. Given below is the information she got. Prepare a frequency table using tally marks: Cat, cat, rabbit, dog, dog, dog, cat, dog, rabbit, parrot, rabbit, pigeon, cat, dog, rabbit, parrot, pigeon, pigeon, parrot, pigeon, dog, dog, rabbit, rabbit.

2. The height of students in a class measured up to an accuracy of whole centimeters is as follow. The number of students in the class is 40; Prepare a frequency table using tally marks: 142 cm, 147 cm, 145 cm, 144 cm, 142 cm, 146 cm, 143 cm, 147 cm, 146 cm, 144 cm, 144 cm, 142 cm, 146 cm, 144 cm, 144 cm, 145 cm, 144cm, 142 cm, 143 cm, 144 cm, 142 cm, 147 cm, 144 cm, 146 cm, 145 cm, 145 cm, 144 cm, 142 cm, 143 cm, 143 cm, 144 cm, 145 cm, 146 cm, 147 cm, 145 cm, 143 cm, 142 cm, 147 cm, 144 cm, 145 cm, 146 cm.

3. Shella, Raju, Sally, and Santosh collect stamps. Read the following pictograph and answer the questions.

Shella	▭ ▭ ▭ ▭ ▭ ▭ ▭
Raju	▭ ▭ ▭ ▭ ▭
Sally	▭ ▭ ▭ ▭ ▭ ▭ ▭
Santosh	▭ ▭ ▭ ▭

a) How many stamps does Sheela have?
b) Who has the least number of stamps?
c) Who all have equal number of stamps?
d) How many more stamps does Raju have than Santosh?
Stamps collection scale: 1 Box =40 stamps.

4. Draw the pictograph for the following data.
a) In a wildlife sanctuary the wild animal census shows the following:

Lion	Cheetah	Tiger	Elephant
28	70	50	90

b) In the city library the information about the books is as follows. (Take an appropriate scale.)

Novels	7000	Literature	5500
Short stories	4050	Science and technology	1980
Educational books	3890		

5. For the 'marathon run for peace' programme a big group of children took part. The age-wise details of participants are

7 years	8 years	9 years	10 years	11 years
100	150	250	200	75

given below.

6. Total number of animals in five villages are as follows:

Prepare a pictograph of these animals using one symbol ⊗ to represent 10 animals and answer the following questions:

Village A : 80	Village B : 120
Village C : 90	Village D : 40
Village E : 60	

a) How many symbols represent animals of village E?

b) Which village has the maximum number of animals?

c) Which village has more animals: village A or village C?

7. Total number of students of a school in different years is shown in the following table

a. Prepare a pictograph of students using one symbol to represent 100 students and answer the following questions:

Years	Number of students	Years	Number of students
1996	400	2002	600
1998	535	2004	623
2000	472		

- How many symbols represent total number of students in the year 2002?
- How many symbols represent total number of students for the year 1998?

b. Prepare another pictograph of students using any other symbol each representing 50 students. Which pictograph do you find more informative?

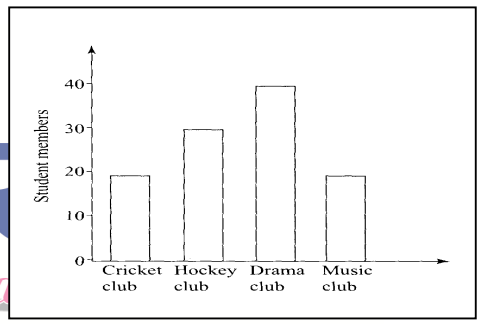
8. Read the bar graph and answer the following questions:

a. What is the total number of students in all the clubs together?

b. Which club has maximum students and how many?

c. Which clubs have equal students?

d. Is the number of students in the year 2003 twice that in the year 2000?



9. Make a bar graph for the following data:

Number of students	2	6	9	10	4	1
Books Read	1	2	3	4	5	6

Q10. The number of mathematics book sold by shopkeeper on six consecutive days is shown below:

Days	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Number of Books Sold	65	40	35	20	10	50

Draw a bar graph to represent the above information choosing the scale of your choice

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