

CLASS - 6th
Chapter - 9 (Data Handling)

①

Data : A data is a collection of numbers gathered to give some information

Pictograph : It represents data through pictures of objects
It helps to answer the questions on the data at a glance.

Exercise 9.1

Ques 1 In a maths test, the following marks were obtained by 40 students. Arrange these marks in a table using tally marks.

8	1	3	7	6	5	5	4	4	2
4	9	5	3	7	1	6	5	2	7
7	3	8	4	2	8	9	5	8	6
7	4	5	6	9	6	4	4	6	6

- a) Find how many students obtained marks equal to or more than 7.
b) How many students obtained marks below 4?

Ans :- By observing the marks scored by 40 students in the test we can construct the table as:-

Marks	Tally Marks	Number of Students
1		2
2		3
3		3
4		7
5		6
6		7
7		5
8		4
9		3
	Total	40

a) Students who obtained marks equal or more than 7 = $5 + 4 + 3 = 12$ students (2)

b) Who obtained below 4 = $2 + 3 + 3 = 8$ students.

Ques 2 Following is the choice of sweets of 30 students of class VI.

Ladoo, Barfi, Ladoo, Jalebi, Ladoo, Rasgulla, Jalebi, Ladoo, Barfi, Rasgulla
Ladoo, Jalebi, Rasgulla, Ladoo, Rasgulla, Jalebi, Ladoo, Rasgulla, Ladoo
Ladoo, Barfi, Rasgulla, Rasgulla, Jalebi, Rasgulla, Ladoo, Rasgulla
Jalebi, Ladoo.

a) Arrange the names of sweets in a table using tally marks.

b) Which sweet is preferred by most of the students?

Ans: - a) The table is as follows:

Sweet	Tally Marks.	Number of students
Ladoo	1	11
Barfi		3
Jalebi		7
Rasgulla		9
		30

b) Ladoo is the most preferred sweet as the most number of students (i.e. = 11).

Ques: 3 Catherine threw a dice 40 times and noted the number appearing each time as shown below:-

1	3	5	6	6	3	5	4	1	6
2	5	3	4	6	1	5	5	6	1
1	2	2	3	5	2	4	5	5	6
5	1	6	2	3	5	2	4	1	5

Make a table and enter the data using tally marks.

Find the number that appeared:

a) The minimum number of times.

b) Maximum number of times

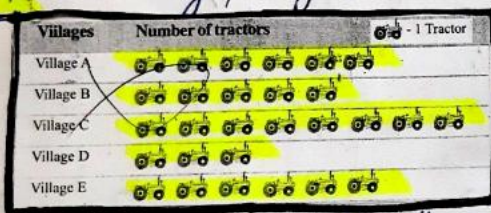
c) Find those numbers that appear an equal number of times.

Ans :- The table is as :-
 Smallest number = 1
 Highest number = 6

Number	Tally Marks	Number of times
1		7
2		6
3		5
4		4
5		7
6		6
Total		40

- Number which appeared minimum times is 4.
- Number " " maximum times is 5.
- 1 and 6 are the numbers which appear for the same number of times.

Ques 4: Following pictograph shows the number of tractors in five villages: observe the pictograph and answer the following questions.



- Which village has the minimum number of tractors?
- Which village has the maximum number of tractors?
- How many more tractors village C has as compared to village B.
- What is the total number of tractors in all the five villages?

Ans :- (i) Village D has minimum number of tractors i.e. only 3.
 (ii) " C has maximum no. of tractors i.e. 8 tractors.
 (iii) Number of more tractors that village C has
 $8 - 3 = 5$ tractors.

(iv) Total number of tractors in all these villages

$$5 + 8 + 8 + 3 + 6 = 30 \text{ tractors.}$$

Ques 5 The number of girl students in each class of co-educational middle school is depicted by the pictograph:

Observe the pictograph and answer the following questions:

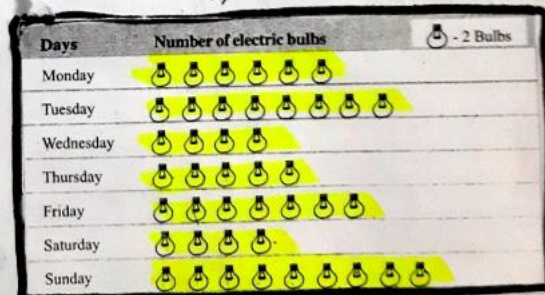


- Which class has the minimum number of girl students?
- Is the number of girls in class VI less than Number of girls in class V?
- How many girls are there in class VII?

- Ans:-**
- CLASS VIII has minimum number of girls i.e only 6 girls.
 - In class V and VI, there are 10 and 12 girls respectively. So, number of girls is more in class VI.
 - There are 16 girls in class VII.

Ques: 6 The sale of electric bulbs on different days of week is shown below:-

Observe the pictograph and answer the following questions:



- How many bulbs were sold on Friday?
- On which day were the maximum number of bulbs sold?
- On which of days same numbers of bulbs were sold?
- On which of days minimum number of bulbs were sold?
- If one big carton can hold 9 bulbs. How many cartons were needed in the given week?

Ans: -

- No. of bulbs sold on Friday = 14 bulbs.
- The maximum numbers of bulbs (i.e. 18) were sold on Sunday.
- Equal number of bulbs were sold on Wednesday and Saturday. (i.e. 8)
- The minimum numbers of bulbs (i.e. 8) were sold on Wednesday and Saturday.
- Total number of bulbs sold in the week:
 $12 + 16 + 8 + 10 + 14 + 8 + 18 = 86$ bulbs.

10 carton

Ques: 7. In a village 6 fruit merchants sold the following number of fruit basket in a particular season:

Observe the pictograph and answer the following questions:

Name of fruit merchants	Number of fruit baskets
Rahim	5
Lakhanpal	6
Anwar	7
Martin	9
Ranjit Singh	7
Joseph	5

- Which merchant sold the maximum number of baskets?
- How many fruit baskets were sold by Anwar?
- The merchant who have sold 600 or more baskets are planning to buy a godown for next year. Can you name them?

Ans: - a) Martin sold the maximum number of baskets i.e., 950.

b) Anwar sold 700 baskets.

c) Anwar, Martin and Ranjit Singh are the three merchants who have sold more than 600 baskets. Therefore, they are planning to buy a godown for the next season.

Exercise 9.2

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Ques: 1 Total number of animals in five villages are as follows:

Village A : 80

Village B : 120

Village C : 90

Village D : 40

Village E : 60

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

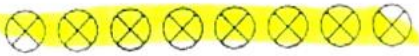
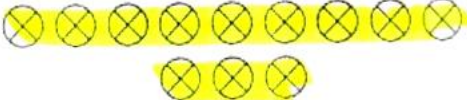
- How many symbols represent animals of village E?
- Which village has maximum number of animals?
- Which village has more animals - Village A or C?

Ans:

a) 6 symbols were used to represent no. of animals in village E.

b) Village B has maximum number of animals i.e 120.

c) Village C has 90 animals and Village A has 80 therefore village C has more animals.

Village	Number of animals $\otimes$ - 10 animals
Village A	
Village B	
Village C	
Village D	
Village E	

Ques 2 ⁽⁷⁾ Total number of students of a school in different year is as shown.

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

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

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

Ans:-

	 - 100 Students
1996	
1998	
2000	
2002	
2004	

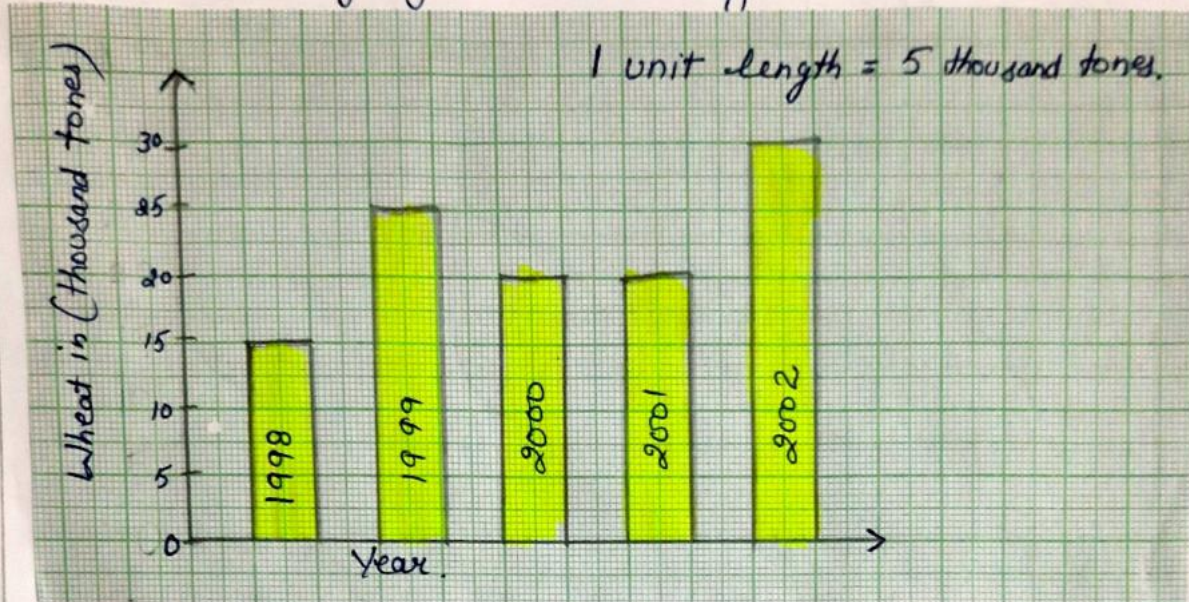
a) 6 symbols represent the total number of students in the year 2002.

b) 5 complete and 1 incomplete symbols represent the total number of students in the year 1998.

Exercise 9.3

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Ques: 1 The bar graph given shows the amount of wheat purchased by government during 1998 - 2002.



Read the bar graph and write down your observation. In which year was:

- the wheat production maximum?
- the wheat production minimum?

Ans: → a) In 2002 wheat production was maximum.
b) In 1998 wheat production was minimum.

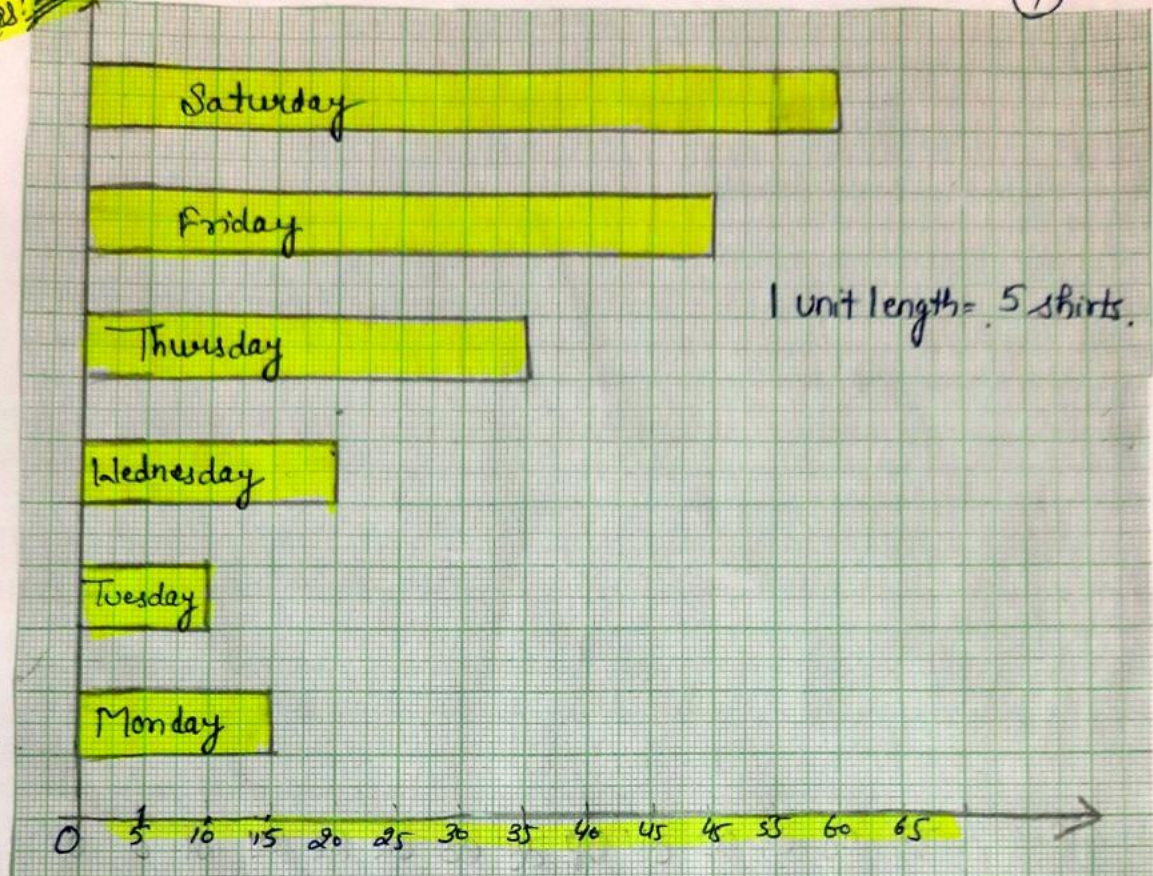
Ques 2 Observe the bar graph which shows the sale of shirts in a ready made shop from Monday to Saturday.

Answer the following question:-

- What information does the bar graph give?
- What is the scale chosen on the horizontal line representing number of shirts?
- On which day were the maximum number of shirts sold? How many shirts were sold on that day?
- On which day were the maximum no. of shirts sold?
- How many shirts were sold on Thursday?

Ques: 2

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- Ans: -
- a) This bar graph represents the number of shirts sold from Monday to Saturday.
 - b) 1 unit = 5 shirts
 - c) The number of shirts sold on Saturday was maximum i.e., 60.
 - d) The number of shirts sold on Tuesday was minimum i.e., 10.
 - e) 35 shirts were sold on Tuesday.

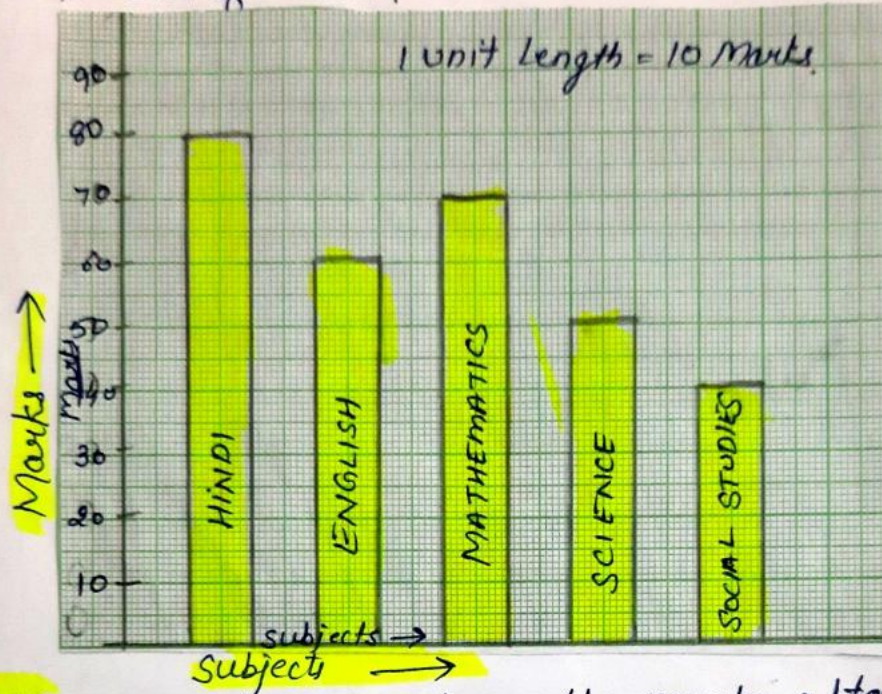
Ques: 3 Observe the bar graph which shows the marks obtained by Aziz in half-yearly examination in different subjects.

Answer the given questions:-

- a) What information does the bar graph give?
- b) Name the subject in which Aziz scored maximum marks?

(10)

- c) Name the subject in which he has scored minimum marks.
 d) State the name of the subjects and marks obtained in each of them.

Ans :-

- a) This graph shows the marks obtained by Aziz in different subjects.
 b) In Hindi, he scored max. marks i.e., 80
 c) In S.St., Aziz scored minimum marks i.e., 40.
 d) Hindi - 80
 English - 60
 Maths - 70
 Science - 50
 Social studies - 40.

EXERCISE 9.4

Ques:-1 A survey of 120 school students was done to find which activity they prefer to do in their free time.

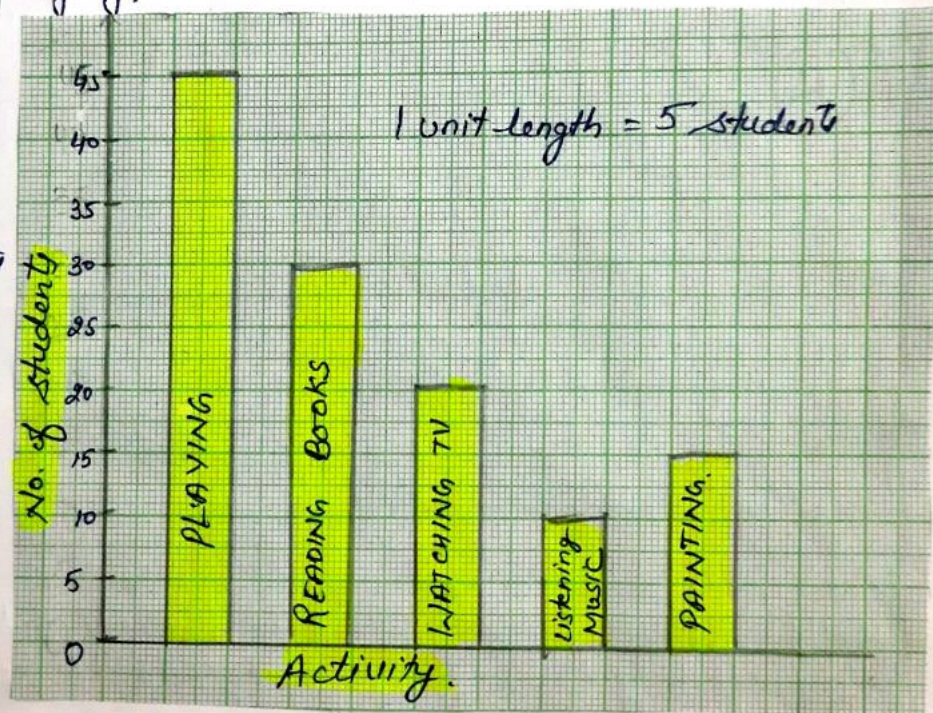
Preferred Activity	No. of Students
Playing	45
Reading story books	30
Watching TV.	20
Listening to Music	10
Painting	15

Draw a bar graph to illustrate the above data taking scale of 1 unit = 5 students.

Which activity is preferred by most of the students other than playing?

Ans:->

By taking a scale of 1 unit length = 5 students the bar graph is drawn as follows: →



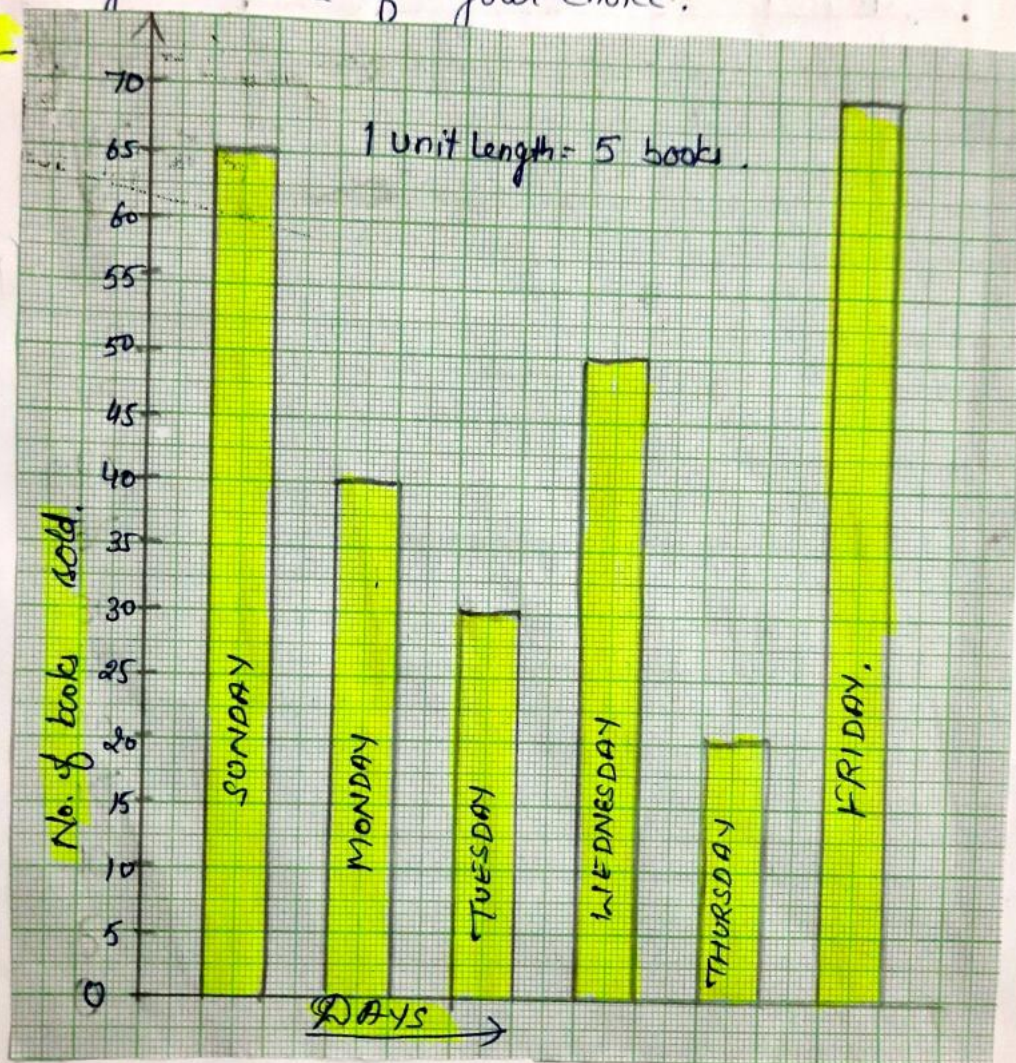
The activity that is preferred by most of the students, other than playing is reading story books.

Ques:- 2. The number of Mathematics books sold by shopkeeper on six consecutive days is shown below:-

Days	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
No. of books	65	40	30	50	20	70

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

Ans:-



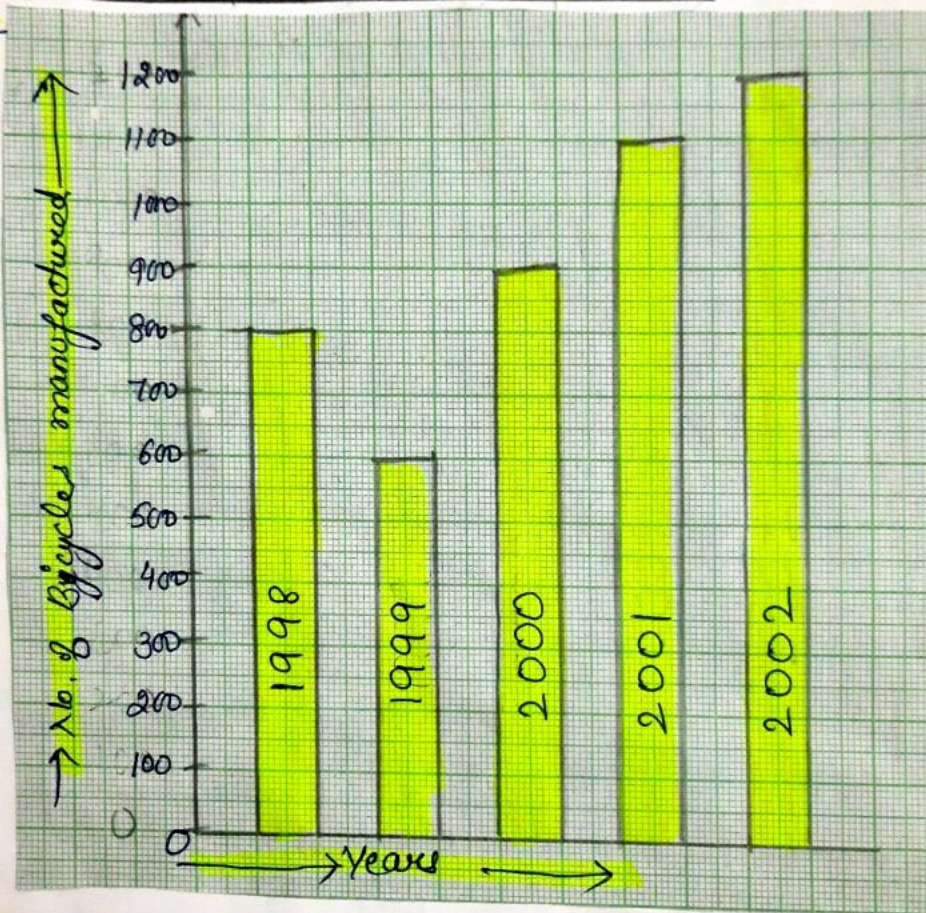
Ques:- 3. Following table shows the number of bicycles manufactured in a factory during the year 1998 to 2002. Illustrate the data using bar graph.

- In which year were the maximum number of bicycles manufactured?
- In which year were the minimum number of bicycles manufactured?

(13)

Years	Number of bicycles manufactured
1998	800
1999	600
2000	900
2001	1100
2002	1200.

Ans:-



- The number of bicycles manufactured in 2002 was maximum i.e., 1200.
- The number of bicycles manufactured in 1999 was minimum i.e., 600.

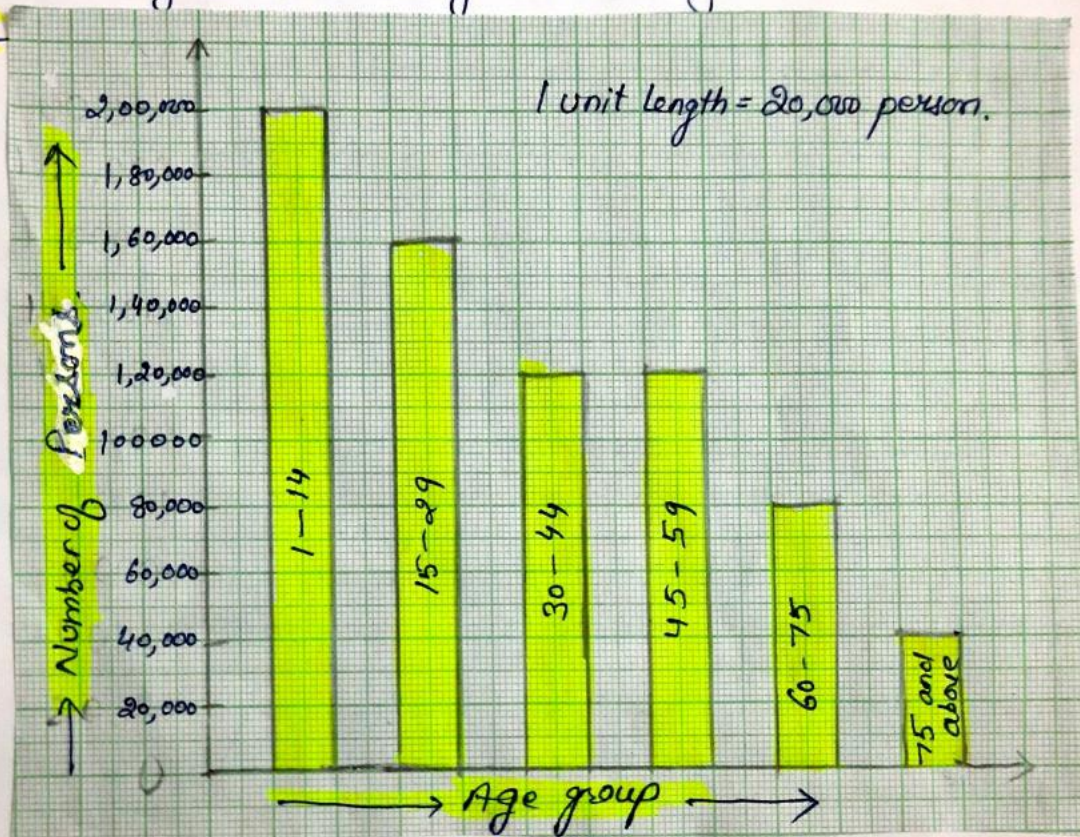
Ques:- 14 No. of persons in various age group in a town is given in the following table:-

Age Group	1-14	15-29	30-44	45-59	60-74	75 and above
No. of persons	2 Lakh	1 Lakh 60 thousand	1 Lakh 20 thousand	1 Lakh 20 thousand	80 thousand	40 thousand

Draw a bar graph to represent the above information.

- Which two age groups have same population?
- All persons in the age group 60 and above are called senior citizens. How many senior citizens are there in the town?

Ans:-



- 30-44 and 45-59 are the two age groups which have same population.
- The total number of senior citizens in the town is $80,000 + 40,000 = 1 \text{ lakh } 20 \text{ thousand}$.

KANCHAN BALA
SCIENCE MISTRESS
GMS MURIDWAL
JALANDHAR