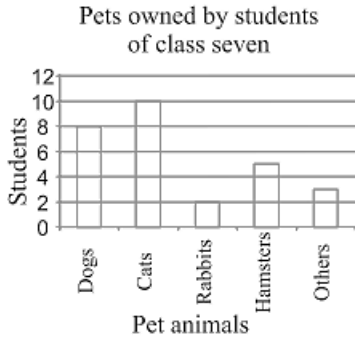
Board – CBSE	Class – 7th	Topic – Data Handling 3.3

Q.1 Use the bar graph (see the given figure) to answer the following questions.

(a) Which is the most popular pet?

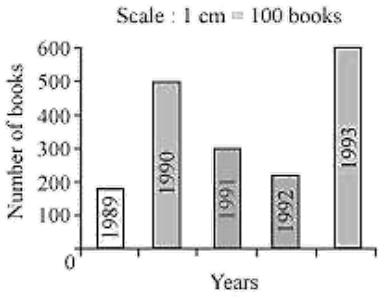
(b) How many children have a dog as a pet?



Sol: (a) Since the bar representing cats is the tallest, cats are the most popular pet.

(b) The number of children having a dog as a pet is 8.

Q.2 Read the bar graph (see the given figure) which shows the number of books sold by a bookstore during five consecutive years and answer the questions that follow:



(i) About how many books were sold in 1989? 1990? 1992?

(ii) In which year were about 475 books sold? About 225 books sold?

(iii) In which years were fewer than 250 books sold?

(iv) Can you explain how you would estimate the number of books sold in 1989?

Sol: According to the given bar graph,

(i) (a) In 1989, 180 books were sold.

(b) In 1990, 475 books were sold.

(c) In 1992, 225 books were sold.

(ii) In 1990, about 475 books were sold and in 1992, about 225 books were sold.

(iii) In 1989 and 1992 fewer than 250 books were sold.

(iv) By reading the graph, we calculate that 180 books were sold in 1989.

Q.3 Number of children in six different classes is given below. Represent the data on a bar graph.

Class	**Fifth**	**Sixth**	**Seventh**	**Eighth**	**Ninth**	**Tenth**
No. of children	135	120	95	100	90	80

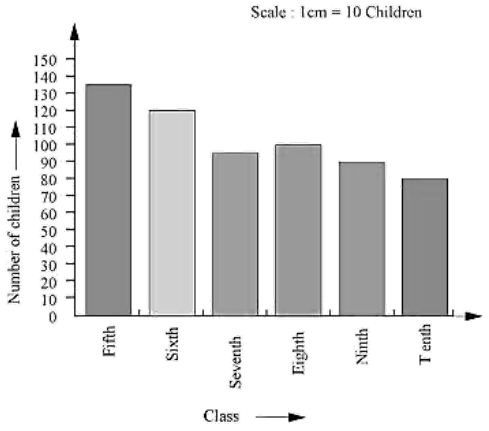
(a) How would you choose a scale?

(b) Answer the following questions:

(i) Which class has the maximum number of children? And the minimum?

(ii) Find the ratio of students of class sixth to the students of class eighth.

Sol:



(a) Scale: 1 unit = 25 children

(b) (i) Fifth class has the maximum number of children and Tenth class has the minimum number of children.

(ii) Ratio $= \frac{120}{100} = \frac{6}{5} = 6 : 5$

Q.4 The performance of a student in the 1st term and 2nd term is given. Draw a double bar graph by choosing the appropriate scale and answer the following:

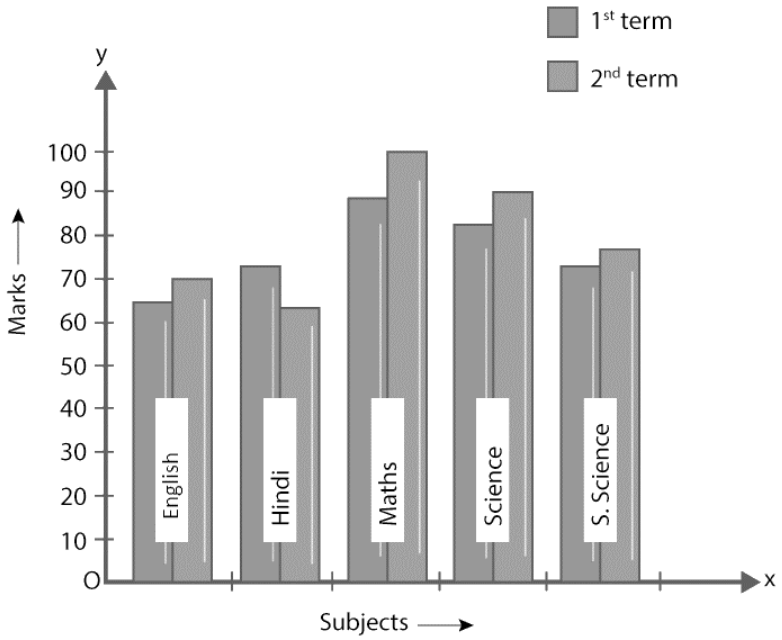
Subject	English	Hindi	Maths	Science	S. Science
1st term (MM. 100)	67	72	88	81	73
2nd term (MM. 100)	70	65	95	85	75

(i)In which subject has the child improved his performance the most?

(ii) In which subject is the improvement the least?

(iii)Has the performance gone down in any subject?

Sol: A double bar graph for the given data is as follows.



(i) There was a maximum increase in the marks obtained in Maths. Therefore, the child has improved his performance the most in Maths.

(ii) From the graph, it can be concluded that the improvement was the least in Science.

(iii) From the graph, it can be observed that the performance in Hindi has gone down.

Q.5 Consider this data collected from a survey of a colony.

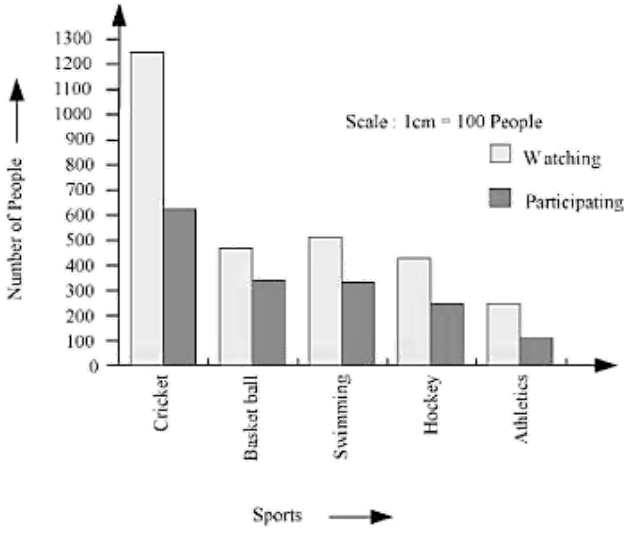
Favorite sport	Cricket	Basketball	Swimming	Hockey	Athletics
Watching	1240	470	510	430	250
Participating	620	320	320	250	105

(i) Draw a double bar graph choosing an appropriate scale. What do you infer from the bar graph?

(ii) Which sport is the most popular?

(iii) Which is more preferred, watching or participating in sports?

Sol: Data represented by the double bar graph is as follows:



(i) This bar graph represents the number of persons who are watching and participating in their favorite sports.

(ii) Cricket is the most popular.

(iii) Watching sports is more preferred.

Q.6 Take the data giving the minimum and the maximum temperature of various cities given in the following table:

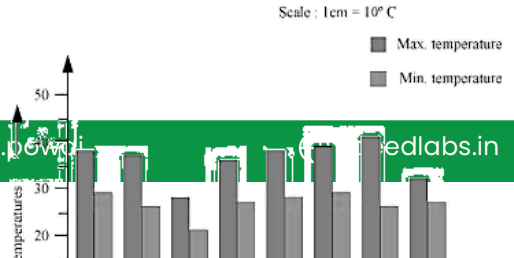
Temperatures of the cities as on 20.6.2006		
City	**Max.**	**Min.**
Ahmedabad	38°C	29°C
Amritsar	37°C	26°C
Banglore	28°C	21°C
Chennai	36°C	27°C
Delhi	38°C	28°C
Jaipur	39°C	29°C
Jammu	41°C	26°C
Mumbai	32°C	27°C

(i) Which city has the largest difference in the minimum and maximum temperature on the given data?

(ii) Which is the hottest city and which is the coldest city?

(iii) Name two cities where the maximum temperature of one was less than the minimum temperature of the other.

(iv) Name the city which has the least difference between its minimum and the maximum temperature.



Sol: A double bar graph for the given data is constructed as follows.

(i) From the graph, it can be concluded that Jammu has the largest difference in its minimum and maximum temperatures on 20.6.2006.

(ii) From the graph, it can be concluded that Jammu is the hottest city and Bangalore is the coldest city.

(iii) Bangalore and Jaipur, Bangalore and Ahmedabad

For Bangalore, the maximum temperature was 28°C, while the minimum temperature of both cities, Ahmedabad and Jaipur, was 29°C.

(iv) From the graph, it can be concluded that the city that has the least difference between its minimum and maximum temperatures is Mumbai.