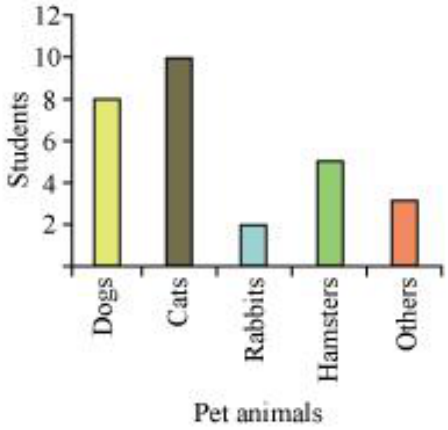
NCERT Solutions For Class 7 Maths Data Handling Exercise 3.3

Q1. 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 dog as a pet?

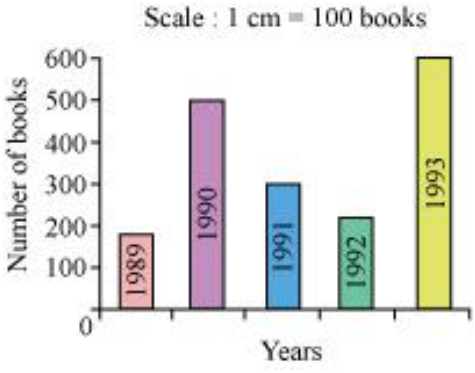


Ans:

(a) Since the bar representing cats is the tallest, cat is the most popular pet.

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

Q2. 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?

Ans:

(i) In 1989, 175 books were sold. In 1990, 475 books were sold. In 1992, 225 books were sold.

(ii) From the graph, it can be concluded that 475 books were sold in the year 1990 and 225 books were sold in the year 1992.

(iii) From the graph, it can be concluded that in the years 1989 and 1992, the number of books sold were less than 250.

(iv) From the graph, it can be concluded that the number of books sold in the year 1989 is about 1 and $\frac{3}{4}$ th part of 1 cm.

We know that the scale is taken as 1 cm = 100 books.

$$100 + \frac{3}{4} \times 100 = 100 + 75 = 175$$

Therefore, about 175 books were sold in the year 1989.

Q3. Number of children in six different classes are given below. Represent the data on a bar graph.

Class	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth
Number of children	135	120	95	100	90	80

(a) How would you choose a scale?

(b) Answer the following questions:

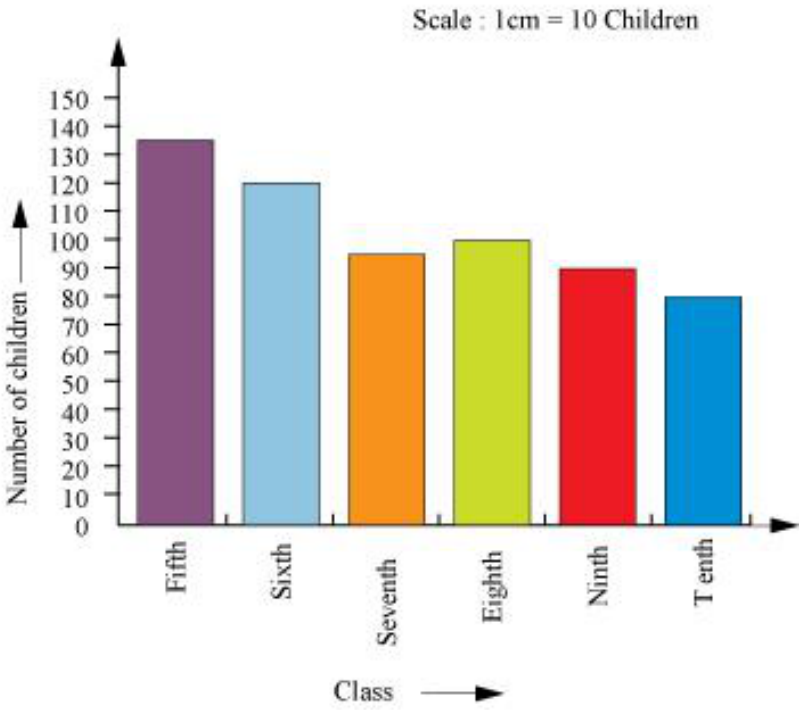
(i) Which class has the maximum number of children? And the

minimum?

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

eight.

Ans:



(a) We will choose a scale as 1 unit = 10 children because we can represent a more clear difference between the number of students of class 7thand that of class 9thby this scale.

(b)

(i) Since the bar representing the number of children for class fifth is the tallest, there are maximum number of children in class fifth. Similarly, since the bar representing the number of children for class tenth is the smallest, there are minimum number of children in class tenth.

(ii) The number of students in class sixth is 120 and the number of students in class eighth is 100.

Therefore, the ratio between the number of students of class sixth and the number of students of class eighth $= \frac{120}{100} = \frac{6}{5} = 6:5$

Q4. The performance of students in 1st Term and 2nd Term is given. Draw a double bar graph choosing appropriate scale and answer the following:

Subject	English	Hindi	Moths	Science	S. science
1st Term (M.M. 100)	67	72	88	81	73
2nd Term (M.M. 100)	70	65	95	85	75

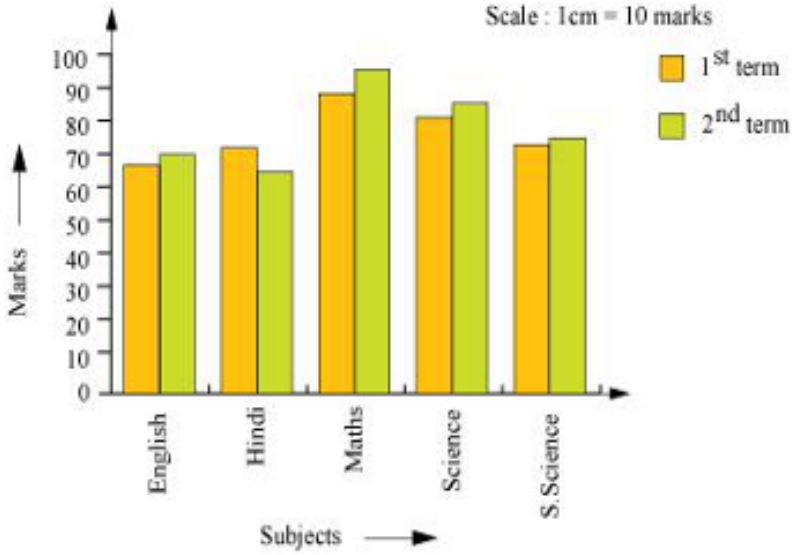
(i) In which subject, has the child improved his performance the most?

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

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

Ans:

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 S. Science.

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

Q5. Consider this data collected from a survey of a colony.

Favourite sport	Cricket	Basket Ball	Swimming	Hockey	Athletics
Watching	1240	470	510	430	250
Participating	620	320	320	250	105

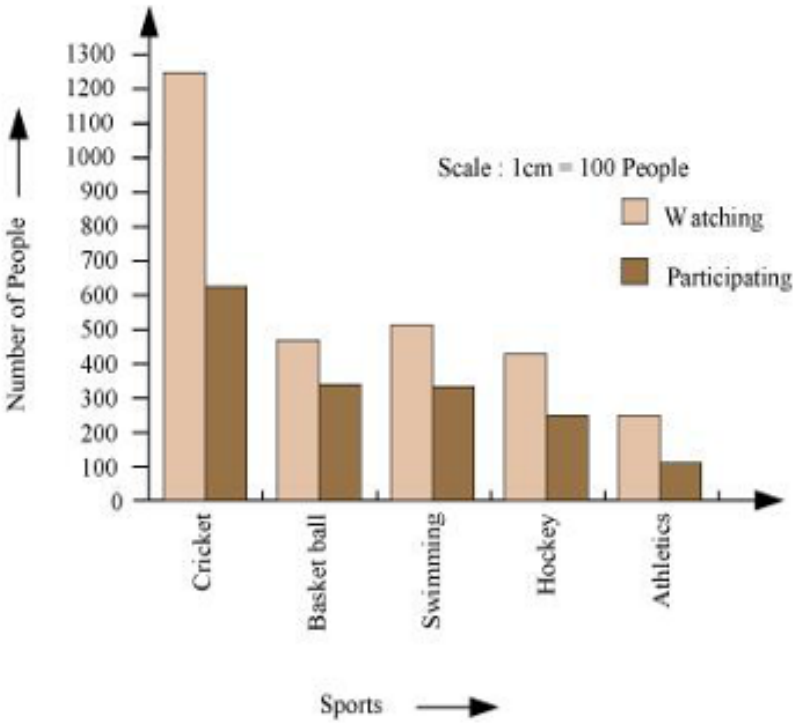
(i) Draw a double bar graph choosing an appropriate scale. What do you infer from the bar graph?

(ii) Which sport is most popular?

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

Ans:

(i)A double bar graph for the given data is as follows.



The double bar graph represents the number of people who like watching and participating in different sports. It can be observed that most of the people like watching and participating in cricket while the least number of people like watching and participating in athletics.

(ii) From the bar graph, it can be observed that the bar representing the number of people who like watching and participating in cricket is the tallest among all the bars. Hence, cricket is the most popular sport.

(iii) The bars representing watching sport are longer than the bars representing participating in sport. Hence, watching different types of sports is more preferred than participating in the sports.

Q6. 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

Plot a double bar graph using the data and answer the following:

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

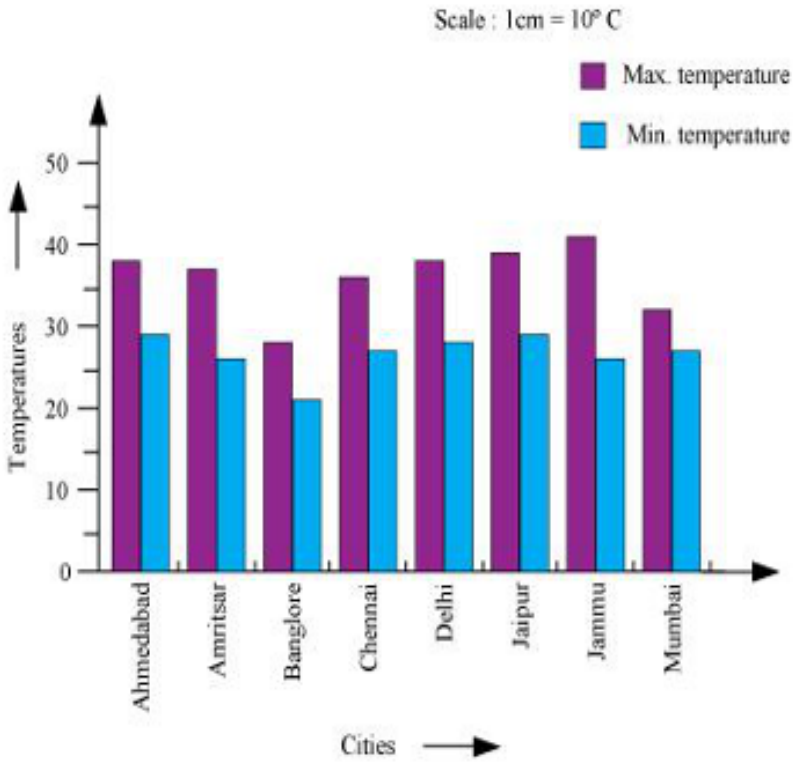
(ii) Which is the hottest city and which is the coldest city?

(iii) Name two cities where 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.

Ans:

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 minimum temperature of both cities, Ahmedabad and Jaipur, was 29°C.

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

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