

Solutions for Class 9 Maths Chapter 23 Graphical Representation of Statistical Data

Exercise 23.1

Question 1: The following table shows the daily production of T.V. sets in an industry for 7 days of a week.

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Number of tv sets	300	400	150	250	100	350	200

Represent the above information by a pictograph.

Solution:

The given information can be represented using a pictograph as below:

Day	Number of T.V. Sets
Monday	     
Tuesday	      
Wednesday	  
Thursday	    
Friday	 
Saturday	     
Sunday	   

 = 50 T.V. Sets

Question 2: The following table shows the number of Maruti cars sold by five dealers in a particular month:

Dealer	saya	Bagga links	D.D Motors	Bhasin Motors	Competent
Cars sold	60	40	20	15	10

Represent the above information by a pictograph.

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Solution:

The given information can be represented using a pictograph as below:

Dealer	Number of Maruthi cars sold
Saya	
Bagga links	
D.D Motors	
Bhasin motors	
Competent	

 = 10 cars

Question 3: The population of Delhi State in different census years is as given below:

Census year	1961	1971	1981	1991	2001
Population in Lakhs	30	55	70	110	150

Represent the above information with the help of a bar graph.

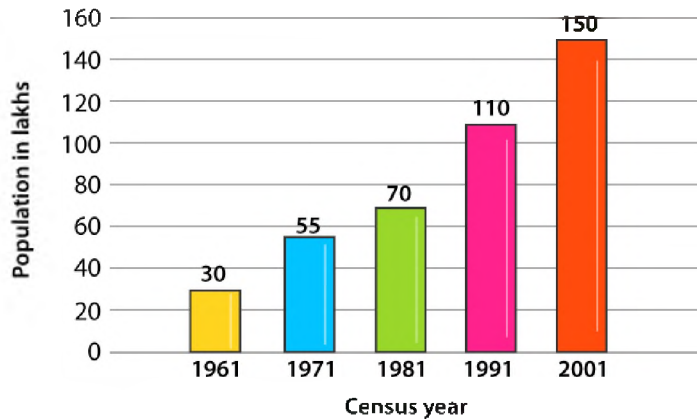
Solutions:

Let us consider the horizontal and vertical axes represent the years and population in lakhs respectively.

The heights of the rectangles are proportional to the population in lakhs.

Bar Graph:

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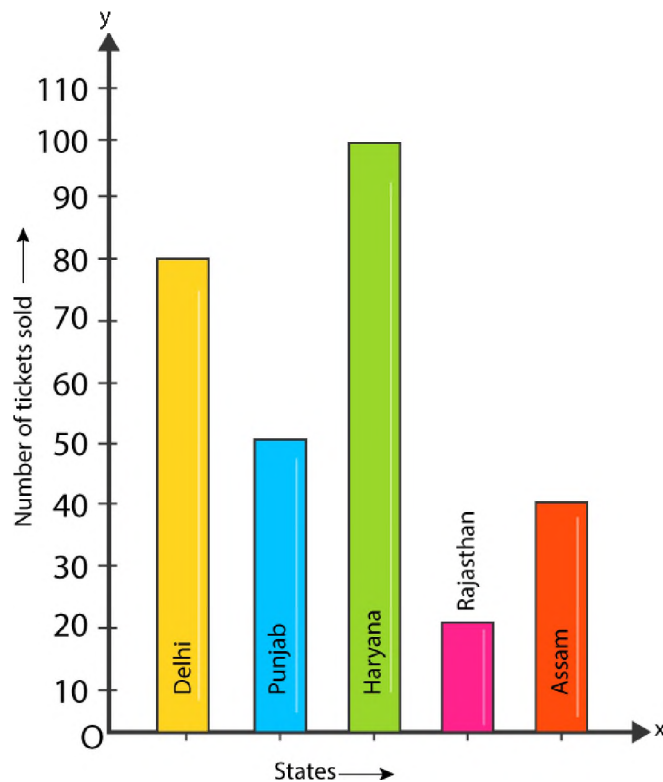


Question 4: Read the bar graph shown below and answer the following questions:

- (i) What is the information given by the bar graph?
- (ii) How many tickets of Assam State Lottery were sold by the agent?
- (iii) Of which state, were the maximum number of tickets sold?
- (iv) State whether true or false.

The maximum number of tickets sold is three times the minimum number of tickets sold.

- (v) Of which state were the minimum numbers of tickets sold?



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Solution:

(i) Bar graph represents the number of tickets of different state lotteries sold by an agent on a day.

(ii) Number of tickets of Assam State Lottery were sold by the agent = 40.

(iii) Maximum numbers of tickets were sold is 100, in the state Haryana.

(iv) Maximum number of tickets were sold is 100, in the state Haryana. Minimum number of tickets were sold is 20, in the state Rajasthan.

It is clear that 100 are equal to 5 times of 20.

Hence, the statement is false.

(v) The minimum numbers of tickets were sold is 20, in the state Rajasthan.

Question 5: Study the bar graph representing the number of persons in various age groups in a town shown in figure. Observe the bar graph and answer the following questions:

(i) What is the percentage of the youngest age-group persons over those in the oldest age group?

(ii) What is the total population of the town?

(iii) What is the number of persons in the age-group 60-65?

(iv) How many persons are more in the age-group 10-15 than in the age group 30-35?

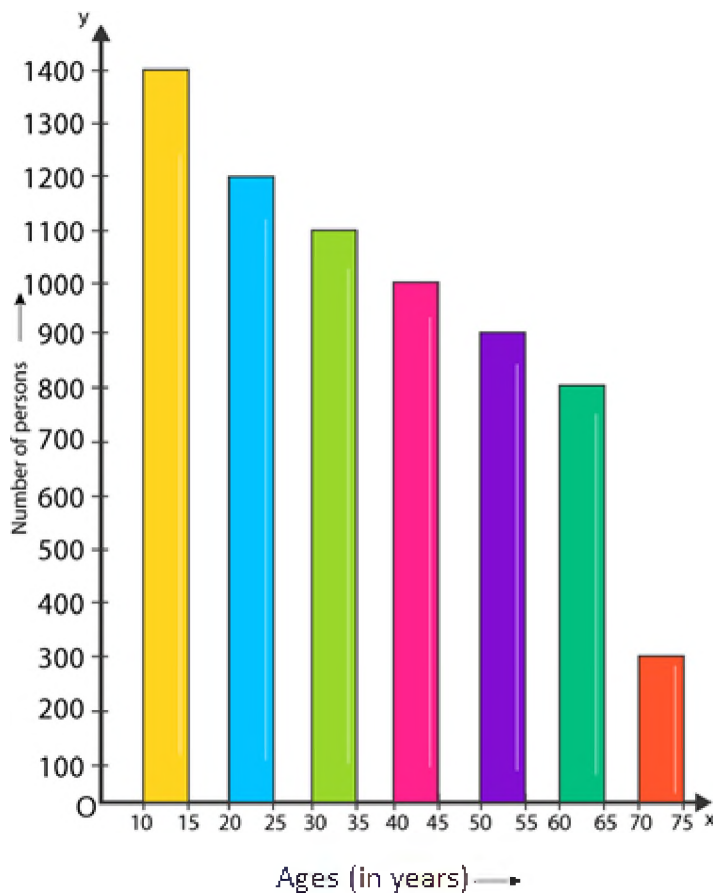
(v) What is the age-group of exactly 1200 persons living in the town?

(vi) What is the total number of persons living in the town in the age-group 50-55?

(vii) What is the total number of persons living in the town in the age-groups 10-15 and 60-65?

(viii) Whether the population in general increases, decreases or remains constant with the increase in the age-group.

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Solution:

(i) Youngest age-group is 10-15 years

The number of persons belonging to this group = 1400

The oldest age-group is 70-75 years and

The number of persons belonging to this group = 300

Now,

The percentage of youngest age-group persons over those in the oldest group is as below:

$$1400/300 \times 100 = 1400/3$$

(ii) Population of the town = $300 + 800 + 900 + 1000 + 1100 + 1200 + 1400 = 6700$

(iii) Number of persons in the age group 60 – 65 = 800.

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(iv) Number of persons in the age group 10 – 15 = 1400

Number of persons in the age group 30-35 = 1100.

Hence the number of more persons in the age group 10 – 15 than the group 30-35 is $1400 - 1100 = 300$.

(v) Age group of 1200 persons living in the town is 20 – 25.

(vi) Total number of persons living in the town in the age-group 50 – 55 is 900.

(vii) Total number of persons living in the town in the age-groups 10 -15 and 60 – 65 is $1400 + 800 = 2200$.

(viii) We have observed that, the height of the bars decreases as the age-group increases. Hence, the population decreases with the increases in the age-group.