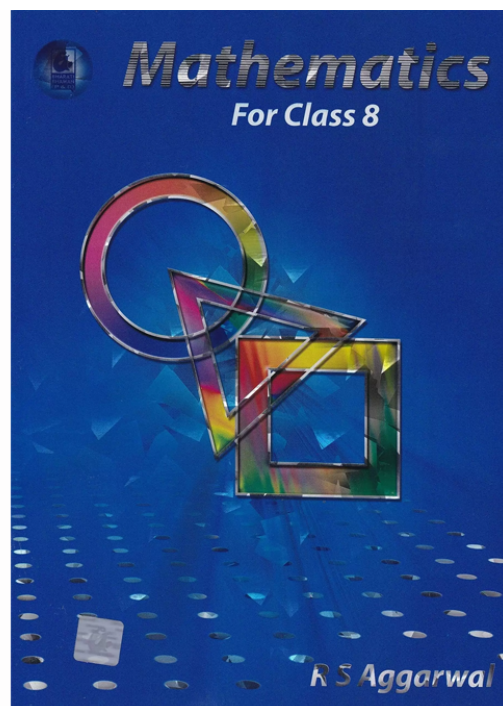


RS Aggarwal Solutions for Class 8 Maths Chapter 22–Constructing and Interpreting Bar Graphs

Class 8 - Chapter 22 Constructing and Interpreting Bar Graphs



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RS Aggarwal Solutions for Class 8 Maths Chapter 22–Constructing and Interpreting Bar Graphs

Class 8: Maths Chapter 22 solutions. Complete Class 8 Maths Chapter 22 Notes.

RS Aggarwal Solutions for Class 8 Maths Chapter 22–Constructing and Interpreting Bar Graphs

RS Aggarwal 8th Maths Chapter 22, Class 8 Maths Chapter 22 solutions

Q1.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the subjects at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 2 mark

Step 4: Then the height of the various bars are:

$$\text{Hindi} = 43/2 = 21.5$$

$$\text{English} = 56 = 28$$

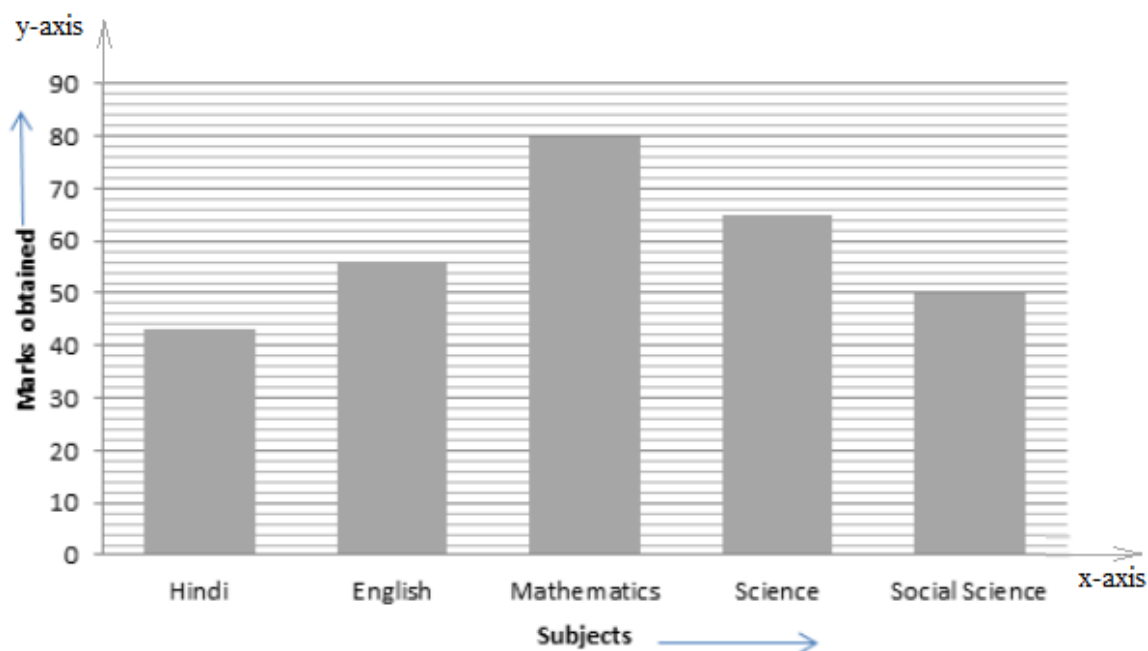
$$\text{Mathematics} = 80 = 40$$

$$\text{Science} = 65 = 32.5$$

$$\text{Social science} = 50 = 25$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:



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Q2.

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the sports at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 2 students

Step 4: Then the height of the various bars are:

$$\text{Cricket} = 75/2 = 37.5$$

$$\text{Football} = 35/2 = 17.5$$

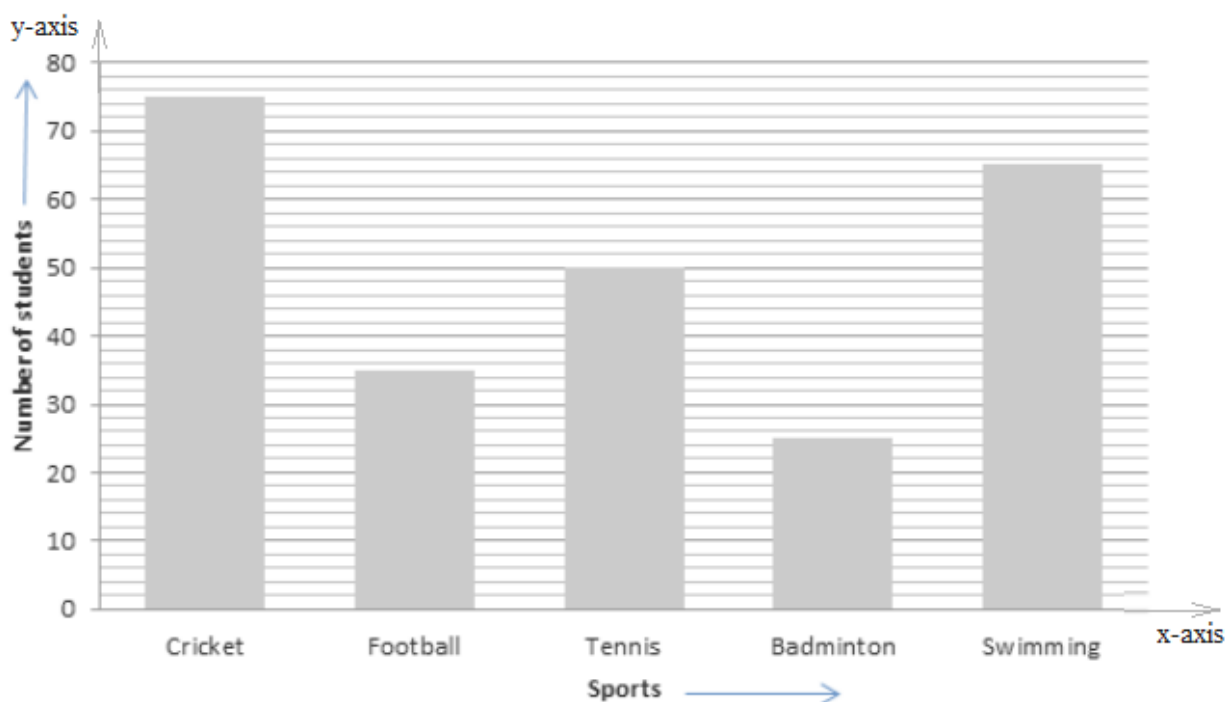
$$\text{Tennis} = 50/2 = 25$$

$$\text{Badminton} = 25/2 = 12.5$$

$$\text{Swimming} = 65/2 = 32.5$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:



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Q3.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the time intervals in years at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 50 students

Step 4: Then the height of the various bars are:

Number of students in the year 2005 – 06 = $\left(\frac{1}{50} \times 800\right) = 16$ small divisions

Number of students in the year 2006 – 07 = $\left(\frac{1}{50} \times 975\right) = 19.5$ small divisions

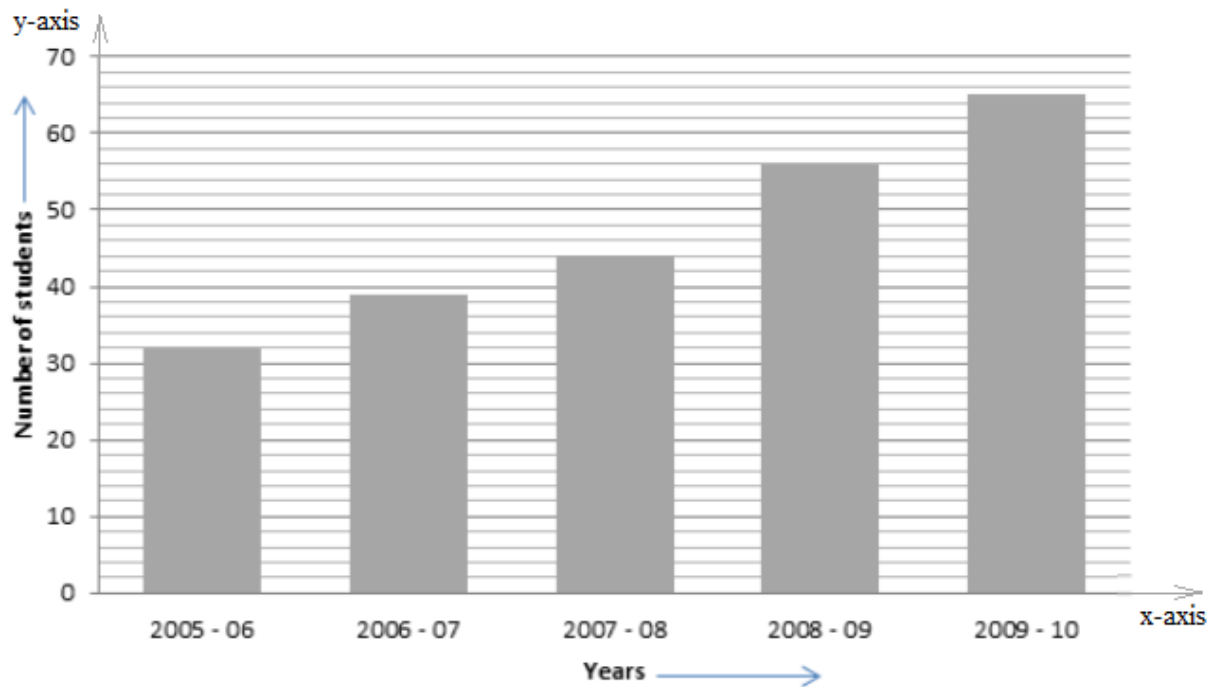
Number of students in the year 2007 – 08 = $\left(\frac{1}{50} \times 1100\right) = 22$ small divisions

Number of students in the year 2008 – 09 = $\left(\frac{1}{50} \times 1400\right) = 28$ small divisions

Number of students in the year 2009 – 10 = $\left(\frac{1}{50} \times 1625\right) = 32.5$ small divisions

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:



Q4.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the time interval in years at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 1000 scooters

Step 4: Then the height of the various bars are:

Number of scooters produced in the year 2004 = $\left(\frac{1}{1000} \times 11000\right) = 11$ small divisions

Number of scooters produced in the year 2005 = $\left(\frac{1}{1000} \times 14000\right) = 14$ small divisions

Number of scooters produced in the year 2006 = $\left(\frac{1}{1000} \times 12500\right) = 12.5$ small divisions

Number of scooters produced in the year 2007 = $\left(\frac{1}{1000} \times 17500\right) = 17.5$ small divisions

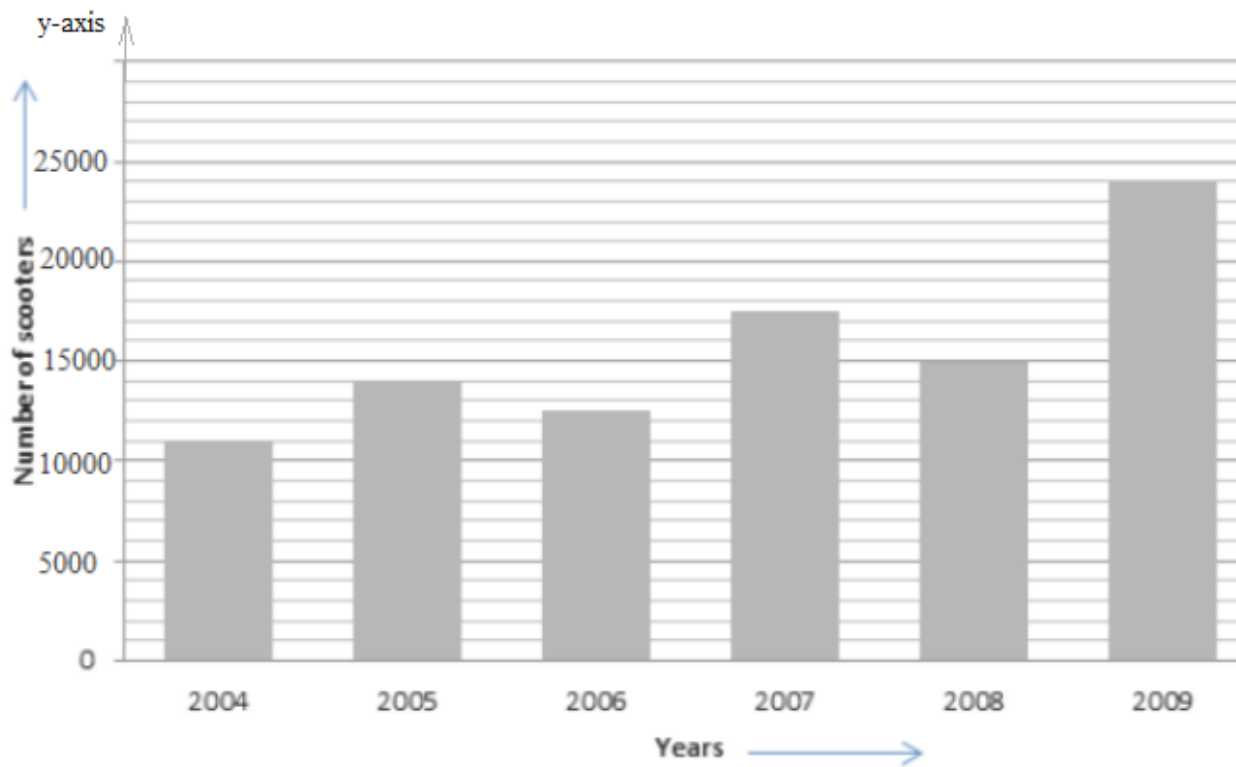
Number of scooters produced in the year 2008 = $\left(\frac{1}{1000} \times 15000\right) = 15$ small divisions

Number of scooters produced in the year 2009 = $\left(\frac{1}{1000} \times 24000\right) = 24$ small divisions

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:

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Q5.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis respectively.

Step 2: Along OX, write the names of the countries at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 1 birth per thousand

Step 4: Then the height of the various bars are:

China : 42

India : 35

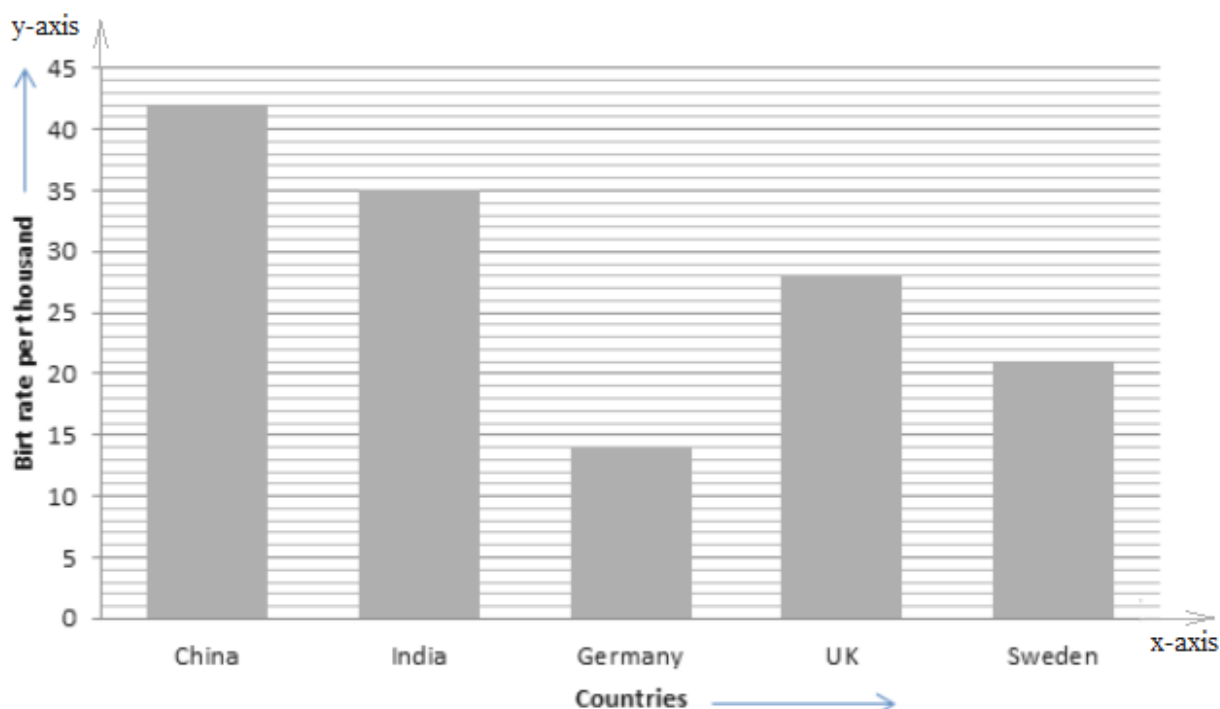
Germany : 14

UK : 28

Sweden : 21

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:



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Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the modes of transportation at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 20 students

Step 4: Then the height of the various bars are as follows:

$$\text{Number of students using school bus} = \left(\frac{1}{20} \times 640 \right) = 32 \text{ small divisions}$$

$$\text{Number of students using private bus} = \left(\frac{1}{20} \times 360 \right) = 18 \text{ small divisions}$$

$$\text{Number of students using bicycle} = \left(\frac{1}{20} \times 490 \right) = 24.5 \text{ small divisions}$$

$$\text{Number of students using rickshaw} = \left(\frac{1}{20} \times 210 \right) = 10.5 \text{ small divisions}$$

$$\text{Number of students going to school by foot} = \left(\frac{1}{20} \times 150 \right) = 7.5 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

Q6.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the states of India at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 40 lakhs (population)

Step 4: Then the height of the various bars are:

$$\text{Population in Bihar (in lakhs)} = \left(\frac{1}{40} \times 820\right) = 20.5 \text{ small divisions}$$

$$\text{Population in Jharkhand (in lakhs)} = \left(\frac{1}{40} \times 270\right) = 6.75 \text{ small divisions}$$

$$\text{Population in Uttar Pradesh (in lakhs)} = \left(\frac{1}{40} \times 1060\right) = 26.5 \text{ small divisions}$$

$$\text{Population in Uttaranchal (in lakhs)} = \left(\frac{1}{40} \times 80\right) = 2 \text{ small divisions}$$

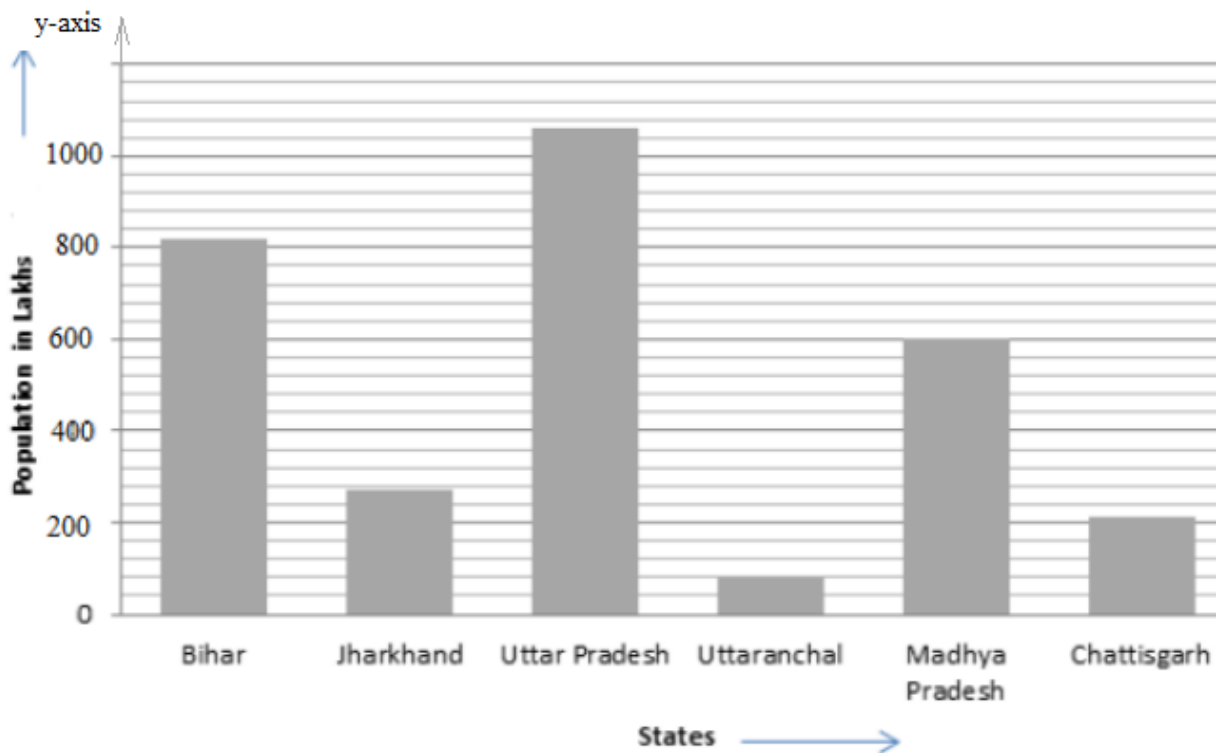
$$\text{Population in Madhya Pradesh (in lakhs)} = \left(\frac{1}{40} \times 600\right) = 15 \text{ small divisions}$$

$$\text{Population in Chattisgarh (in lakhs)} = \left(\frac{1}{40} \times 210\right) = 5.25 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

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The completed bar graph is as shown below:



Q7.

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Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the years of census at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 40 millions (population)

Step 4: Then the height of the various bars are:

$$\text{Population in 1951 (in millions)} = \left(\frac{1}{40} \times 360\right) = 9 \text{ small divisions}$$

$$\text{Population in 1961 (in millions)} = \left(\frac{1}{40} \times 432\right) = 10.8 \text{ small divisions}$$

$$\text{Population in 1971 (in millions)} = \left(\frac{1}{40} \times 540\right) = 13.5 \text{ small divisions}$$

$$\text{Population in 1981 (in millions)} = \left(\frac{1}{40} \times 684\right) = 17.1 \text{ small divisions}$$

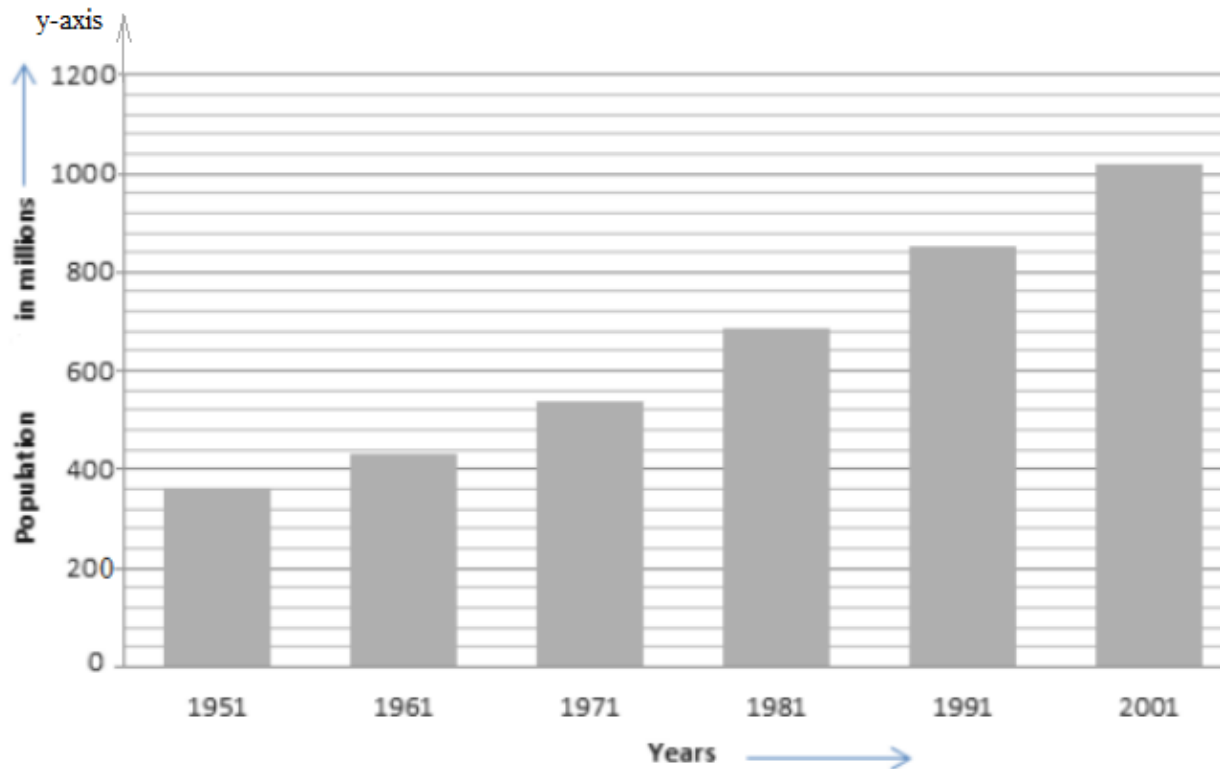
$$\text{Population in 1991 (in millions)} = \left(\frac{1}{40} \times 852\right) = 21.3 \text{ small divisions}$$

$$\text{Population in 2001 (in millions)} = \left(\frac{1}{40} \times 1020\right) = 25.5 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

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The completed bar graph is as shown below:



Q8.

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Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the years at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 4 thousand crore rupees

Step 4: Then the height of the various bars are:

$$\text{Interest in 1998} - 1999 \left(\text{in thousand crore rupees} \right) = \frac{70}{4} = 17.5 \text{ small divisions}$$

$$\text{Interest in 1999} - 2000 \left(\text{in thousand crore rupees} \right) = \frac{84}{4} = 21 \text{ small divisions}$$

$$\text{Interest in 2000} - 2001 \left(\text{in thousand crore rupees} \right) = \frac{98}{4} = 24.5 \text{ small divisions}$$

$$\text{Interest in 2001} - 2002 \left(\text{in thousand crore rupees} \right) = \frac{106}{4} = 26.5 \text{ small divisions}$$

$$\text{Interest in 2002} - 2003 \left(\text{in thousand crore rupees} \right) = \frac{120}{4} = 30 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

Q9.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the places at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 40 km

Step 4: Then the height of the various bars are:

$$\text{Distance from Delhi to Kolkata (in km)} = \left(\frac{1}{40} \times 1340\right) = 33.5 \text{ small divisions}$$

$$\text{Distance from Delhi to Mumbai (in km)} = \left(\frac{1}{40} \times 1100\right) = 27.5 \text{ small divisions}$$

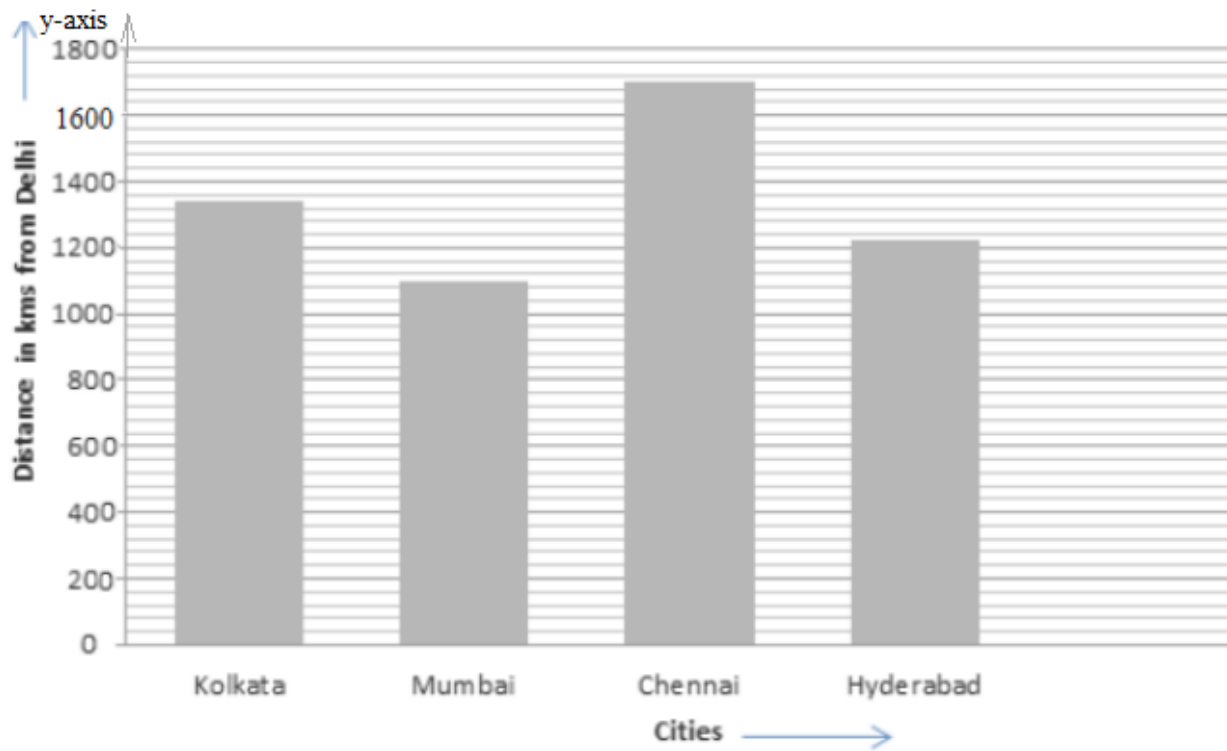
$$\text{Distance from Delhi to Chennai (in km)} = \left(\frac{1}{40} \times 1700\right) = 42.5 \text{ small divisions}$$

$$\text{Distance from Delhi to Hyderabad (in km)} = \left(\frac{1}{40} \times 1220\right) = 30.5 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:

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Q10.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the countries at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 2 years.

Step 4: Then the height of the various bars are:

Life expectancy in Japan : $\frac{76}{2} = 38$ *small divisions*

Life expectancy in India : $\frac{57}{2} = 28.5$ *small divisions*

Life expectancy in Britain : $\frac{70}{2} = 35$ *small divisions*

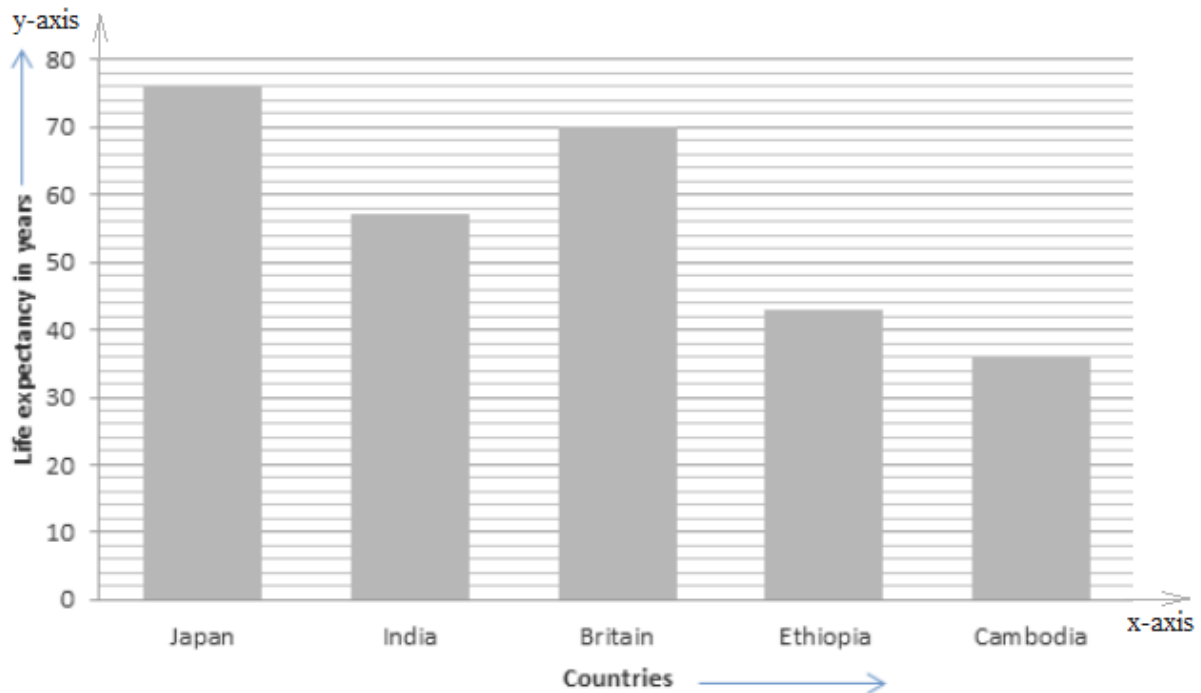
Life expectancy in Ethiopia : $\frac{43}{2} = 8.6$ *small divisions*

Life expectancy in Cambodia : $\frac{36}{2} = 18$ *small divisions*

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

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The completed bar graph is as shown below:



Q11.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the names of the soap brands at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 1% buyer

Step 4: Then the height of the various bars are:

Percentage of buyers of brand A = 45 divisions

Percentage of buyers of brand B = 25 divisions

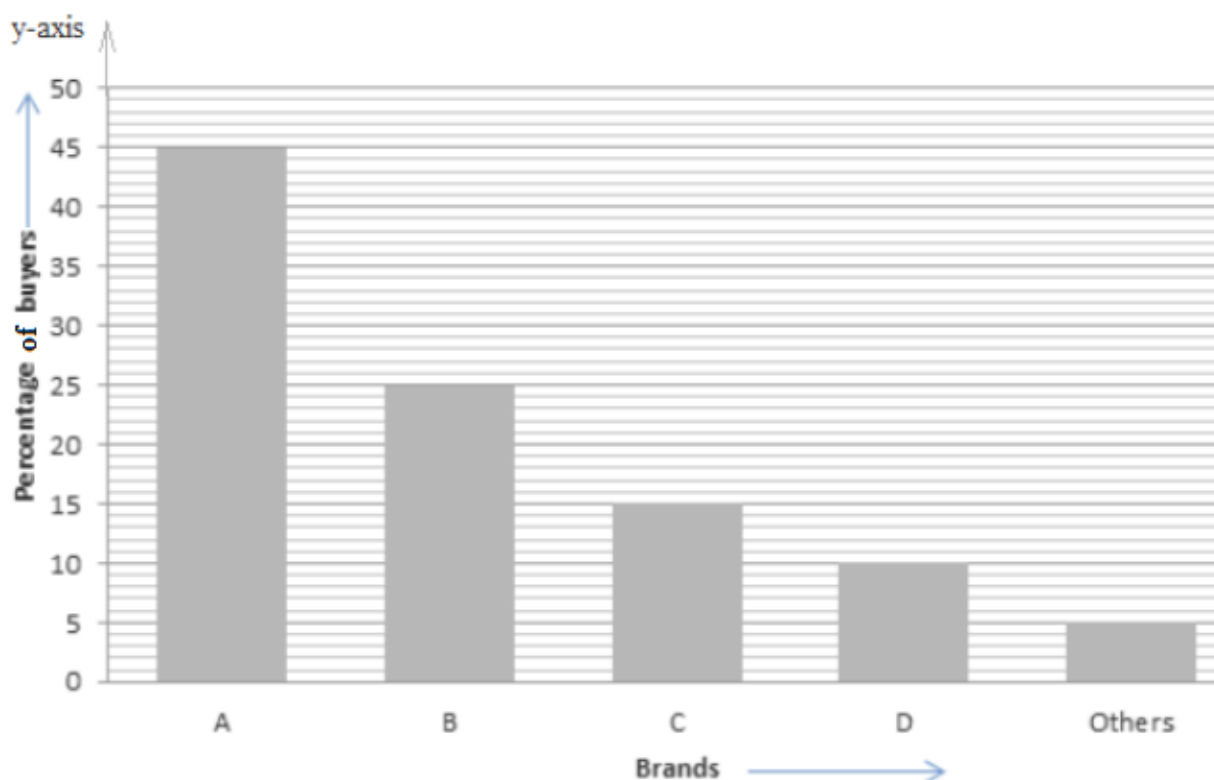
Percentage of buyers of brand C = 15 divisions

Percentage of buyers of brand D = 10 divisions

Percentage of buyers of other brand = 5 divisions

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:



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Q12.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

The following steps are followed while drawing the bar graph:

Step 1: On a graph paper, draw a horizontal line OX and a vertical line OY, representing the x-axis and y-axis, respectively.

Step 2: Along OX, write the modes of transportation at points taken at uniform gaps.

Step 3: Choose the scale: 1 small division = 20 students

Step 4: Then the height of the various bars are as follows:

$$\text{Number of students using school bus} = \left(\frac{1}{20} \times 640 \right) = 32 \text{ small divisions}$$

$$\text{Number of students using private bus} = \left(\frac{1}{20} \times 360 \right) = 18 \text{ small divisions}$$

$$\text{Number of students using bicycle} = \left(\frac{1}{20} \times 490 \right) = 24.5 \text{ small divisions}$$

$$\text{Number of students using rickshaw} = \left(\frac{1}{20} \times 210 \right) = 10.5 \text{ small divisions}$$

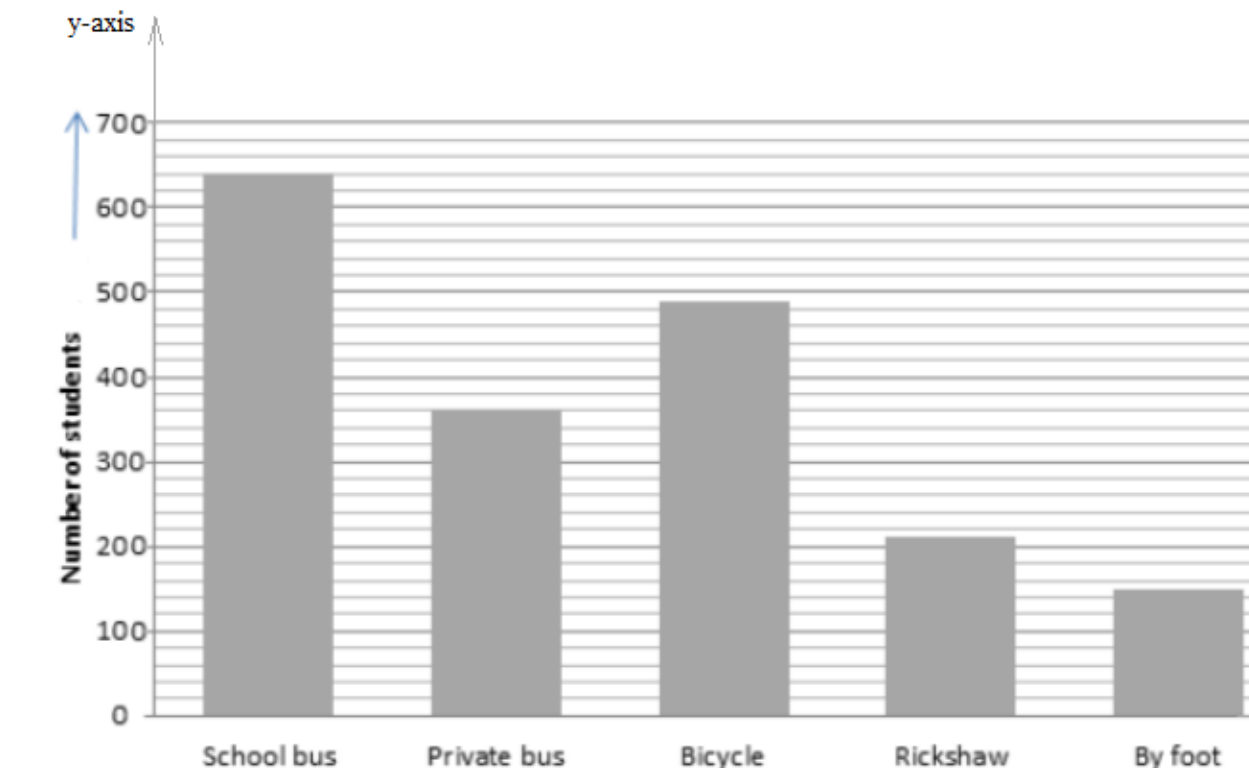
$$\text{Number of students going to school by foot} = \left(\frac{1}{20} \times 150 \right) = 7.5 \text{ small divisions}$$

Step 5: On the x-axis, draw bars of equal width and of heights obtained in step 4 at the points marked in step 2.

The completed bar graph is as shown below:

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The completed bar graph is as shown below:



Q13.

Answer :

- (i) The given bar graph shows the marks scored by a student in five different subjects in his exams.
- (ii) It is clear from the graph that the bar of the maximum height corresponds to mathematics. So, the student is very good in mathematics.
- (iii) It is clear from the graph that the bar of the minimum height corresponds to Hindi. So, the student is poor in Hindi.
- (iv) Average marks scored by the student = $\frac{(60+35+75+50+60)}{5} = \frac{280}{5} = 56$

Q14.

<https://www.indcareer.com/schools/rs-aggarwal-solutions-for-class-8-maths-chapter-22-constructing-and-interpreting-bar-graphs/>

Answer :

- (i) The given bar graph shows the number of families staying in a colony and, also, the number of family members in each family.
- (ii) It is clear from the graph that the bar showing the families with three members corresponds to the reading 40 on the y-axis. Therefore, 40 families have three members each.
- (iii) It is clear from the graph that there is no bar showing the reading that corresponds to 1 on the y-axis. Therefore, no single person in the colony lives alone.
- (iv) It is clear from the graph that the bar showing the families with three members corresponds to the maximum reading. Therefore, a three-member family is the most common. Each family of this kind comprises three members.

Q15.

Answer :

- (i) It is clear from the bar graph that the bar with the maximum height corresponds to Mount Everest. Therefore, Mount Everest is the highest peak and its height is 8800 metres.
- (ii) The ratio of the heights of the highest peak and the second highest peak is

Mount Everest : Kanchenjunga
or 8800 : 8200
or 44 : 41

- (iii) According to the graph, the heights of the given peaks can be arranged in descending order as:
8800 m, 8200 m, 8000 m, 7500 m, 6000 m



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- Chapter 8–Linear Equations
- Chapter 9–Percentage
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He was born on January 2, 1946 in a village of Delhi. He graduated from Kirori Mal College, University of Delhi. After completing his M.Sc. in Mathematics in 1969, he joined N.A.S. College, Meerut, as a lecturer. In 1976, he was awarded a fellowship for 3 years and joined the University of Delhi for his Ph.D. Thereafter, he was promoted as a reader in N.A.S. College, Meerut. In 1999, he joined M.M.H. College, Ghaziabad, as a reader and took voluntary retirement in 2003. He has authored more than 75 titles ranging from Nursery to M. Sc. He has also written books for competitive examinations right from the clerical grade to the I.A.S. level.

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