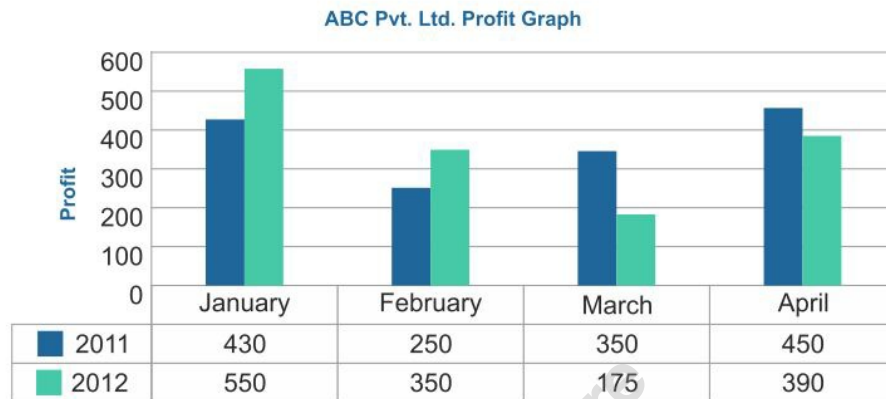




## Bar Graph

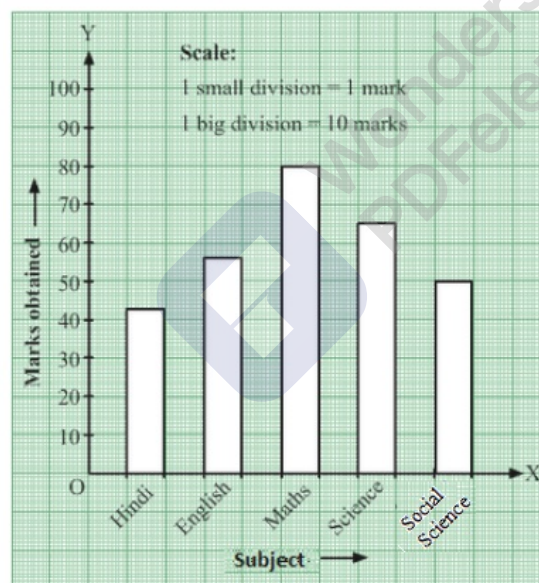
**Bar Graph** - Rectangular bars with lengths proportional to the values that they represent.

This double bar graph shows the comparative profits for 2 consecutive years.



Q1

Answer :



We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the subjects at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 10 marks

1 small division = 1 mark

Step 4.- Heights of the various bars are:

Hindi = 43 small divisions = 4 big divisions and 3 small divisions

English = 56 small divisions = 5 big divisions and 6 small divisions

Maths = 80 small divisions = 8 big divisions

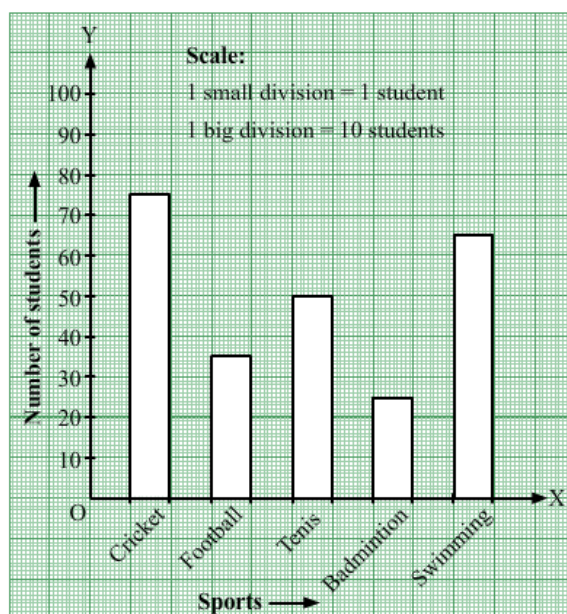
Science = 65 small divisions = 6 big divisions and 5 small divisions

Social Science = 50 small divisions = 5 big divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

Q2

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**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the sports at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 10 students

1 small division = 1 student

Step 4.- Heights of the various bars:

Cricket = 75 small divisions = 7 big divisions and 5 small divisions

Football = 35 small divisions = 3 big divisions and 5 small divisions

Tennis = 50 small divisions = 5 big divisions

Badminton = 25 small divisions = 2 big divisions and 5 small divisions

Swimming = 65 small divisions = 6 big divisions and 5 small divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

**Q3****Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the years at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 100 students

1 small division = 10 student

Step 4.- Heights of the various bars:

2005-2006 = 80 small divisions = 8 big divisions

2006-2007 = 97.5 small divisions = 9 big divisions and 7.5 small divisions

2007-2008 = 110 small divisions = 11 big divisions

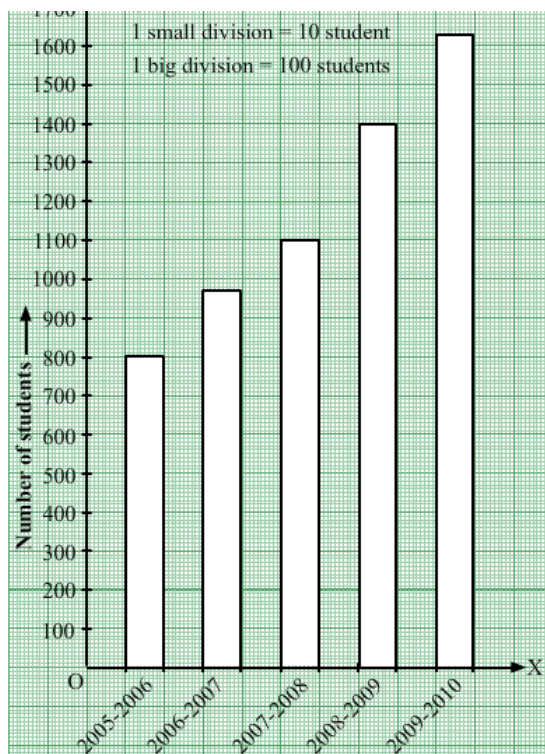
2008-2009 = 140 small divisions = 14 big divisions

2009-2010 = 162.5 small divisions = 16 big divisions and 2.5 small divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:

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Q4

**Answer :**

We can draw the bar graph by following the given steps:-

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the years at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 2000 scooters

1 small division = 200 scooters

Step 4.- Heights of the various bars:

2004 = 55 small divisions = 5 big divisions and 5 small divisions

2005 = 70 small divisions = 7 big divisions

2006 = 62.5 small divisions = 6 big divisions 2.5 small divisions

2007 = 87.5 small divisions = 8 big divisions and 7.5 small divisions

2008 = 75 small divisions = 7 big divisions and 5 small divisions

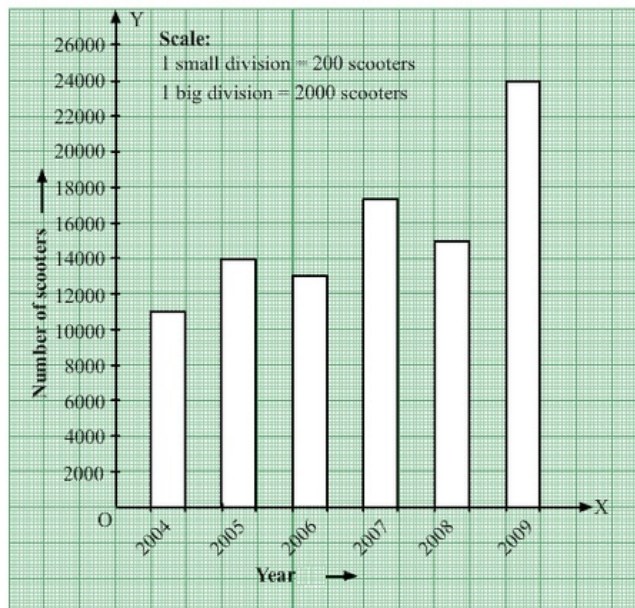
2009 = 120 small divisions = 12 big divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.





We get the following bar graph:



Q5

**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the countries at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 5 unit

2 small division = 1 unit

Step 4.- Heights of the various bars:

China = 84 small divisions = 8 big divisions and 4 small divisions

India = 70 small divisions = 7 big divisions

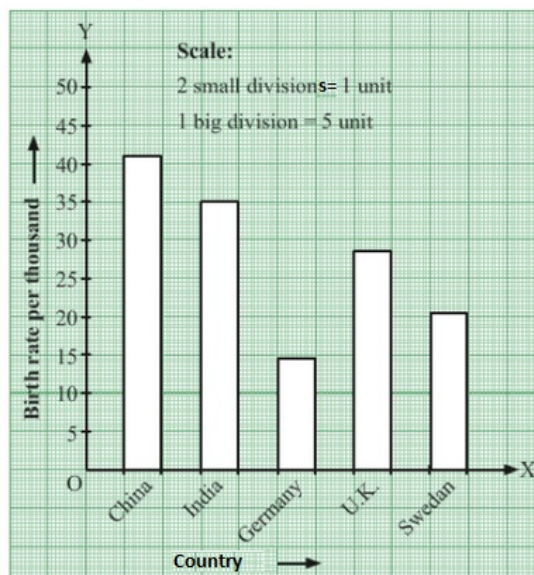
Germany = 28 small divisions = 2 big divisions and 8 small divisions

U.K. = 56 small divisions = 5 big divisions and 6 small divisions

Sweden = 42 small divisions = 4 big divisions and 2 small divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q6

**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the states at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 100 lakhs

1 small division = 10 lakhs

Step 4.- Heights of the various bars:

Bihar = 82 small divisions = 8 big divisions and 2 small divisions

Jharkhand = 27 small divisions = 2 big divisions and 7 small divisions

Uttar Pradesh = 106 small divisions = 10 big divisions and 6 small divisions

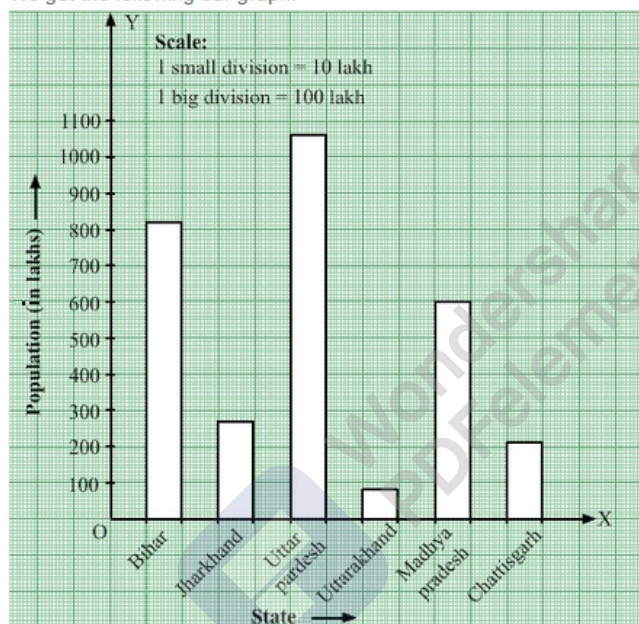
Uttarakhand = 8 small divisions

Madhya Pradesh = 60 small divisions = 6 big divisions

Chhattisgarh = 21 small divisions = 2 big divisions and 1 small division

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q7

**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the year at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 100 million

1 small division = 10 million

Step 4.- Heights of the various bars:

1951 = 36 small divisions = 3 big divisions and 6 small divisions

1961 = 43.2 small divisions = 4 big divisions and 3.2 small divisions

1971 = 54 small divisions = 5 big divisions and 4 small divisions

1981 = 68.4 small divisions = 6 big divisions and 8.4 small divisions

1991 = 85.2 small divisions = 8 big divisions and 5.2 small divisions

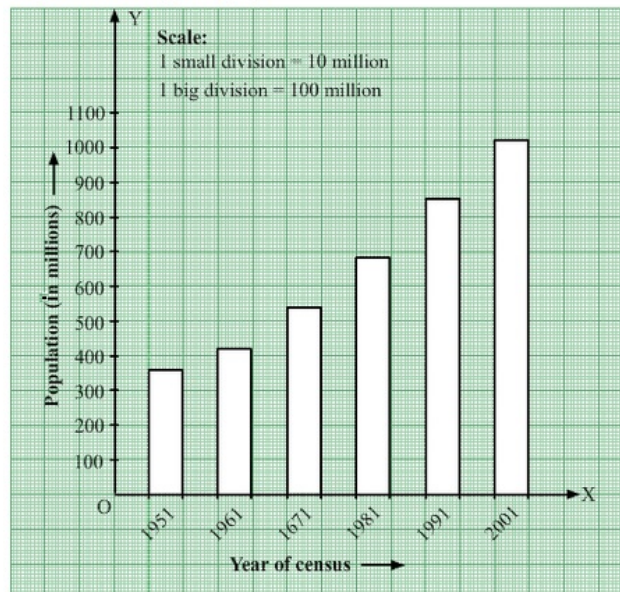
2001 = 102 small divisions = 10 big divisions and 2 small divisions





Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should be the same.

We get the following bar graph:



Q8

**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the years at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 10 thousand crore rupees

1 small division = 1 thousand crore rupees

Step 4.- Heights of the various bars:

1998-99 = 70 small divisions = 7 big divisions

1999-2000 = 84 small divisions = 8 big divisions and 4 small divisions

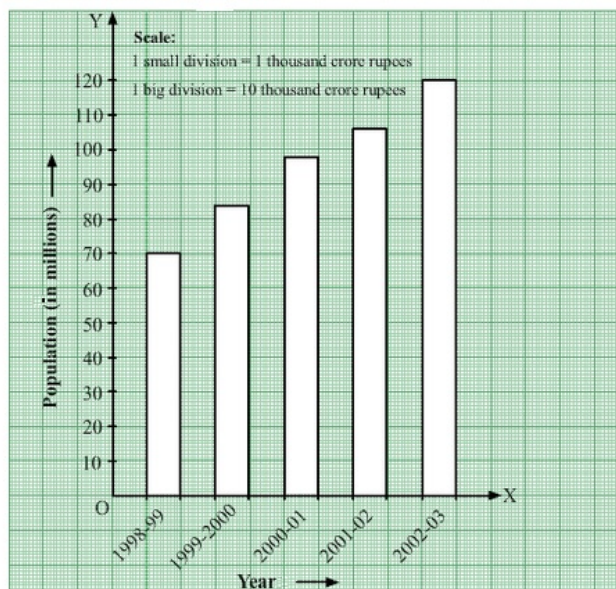
2000-2001 = 98 small divisions = 9 big divisions and 8 small divisions

2001-2002 = 106 small divisions = 10 big divisions and 6 small divisions

2002-2003 = 120 small divisions = 12 big divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:





Q9

**Answer :**

We can draw the bar graph by following steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the cities at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 100 km

1 small division = 10 km

Step 4.- Heights of the various bars:

Kolkata = 134 small divisions = 13 big divisions and 4 small divisions

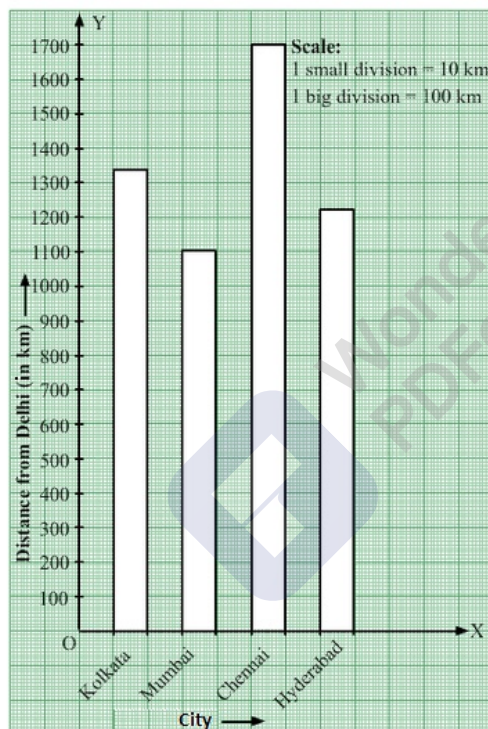
Mumbai = 110 small divisions = 11 big divisions

Chennai = 170 small divisions = 17 big divisions

Hyderabad = 122 small divisions = 12 big divisions and 2 small divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q10



**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the countries at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 10 years

1 small division = 1 year

Step 4.- Heights of the various bars:

Japan = 76 small divisions = 7 big divisions and 6 small divisions

India = 57 small divisions = 5 big divisions and 7 small divisions

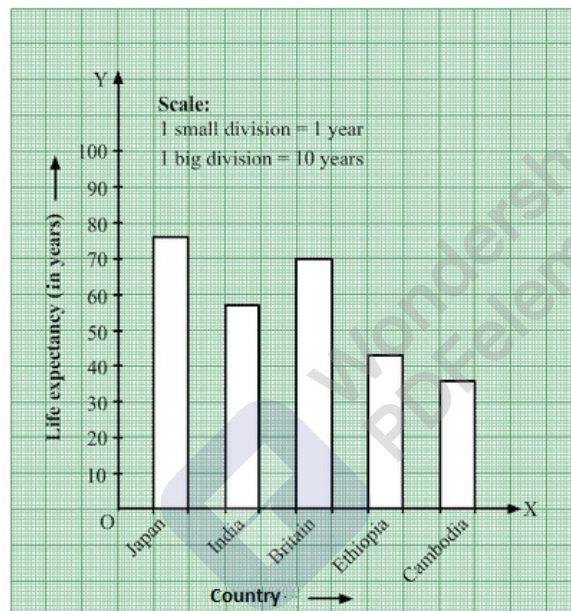
Britain = 70 small divisions = 7 big divisions

Ethiopia = 43 small divisions = 4 big divisions and 3 small divisions

Cambodia = 36 small divisions = 3 big divisions and 6 small divisions

Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q11

**Answer :**

We can draw the bar graph by following steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the years at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 20 thousand crore rupees

1 small division = 2 thousand crore rupees

Step 4.- Heights of the various bars:

2001-02 = 74 small divisions = 7 big divisions and 4 small divisions

2002-03 = 88 small divisions = 8 big divisions and 8 small divisions

2003-04 = 102 small divisions = 10 big divisions and 2 small divisions

2004-05 = 116 small divisions = 11 big divisions and 6 small divisions

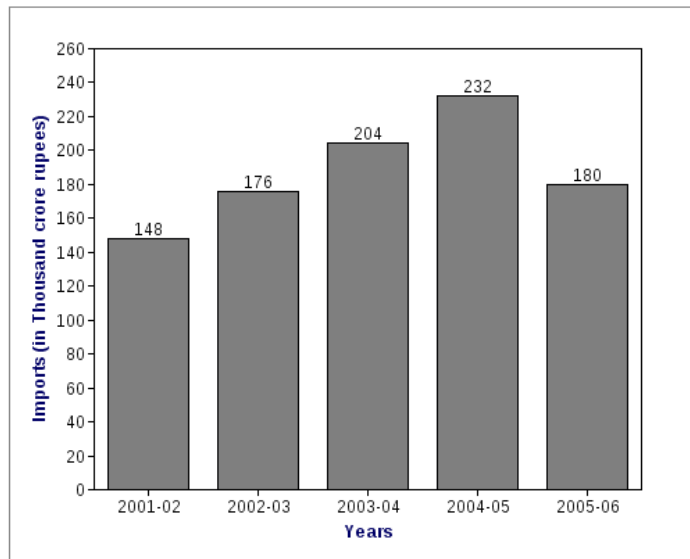
2005-06 = 90 small divisions = 9 big divisions





Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should be the same.

We get the following bar graph:



Q12

**Answer :**

We can draw the bar graph by following the given steps:

Step 1- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2- Along OX, write the names of the months at the points taken at a uniform gap.

Step 3- Choose the scale:

1 big division = 5 cm

2 small divisions = 1 cm

Step 4- Heights of the various bars:

June = 50 small divisions = 5 big divisions

July = 60 small divisions = 6 big divisions

August = 80 small divisions = 8 big divisions

September = 40 small divisions = 4 big divisions

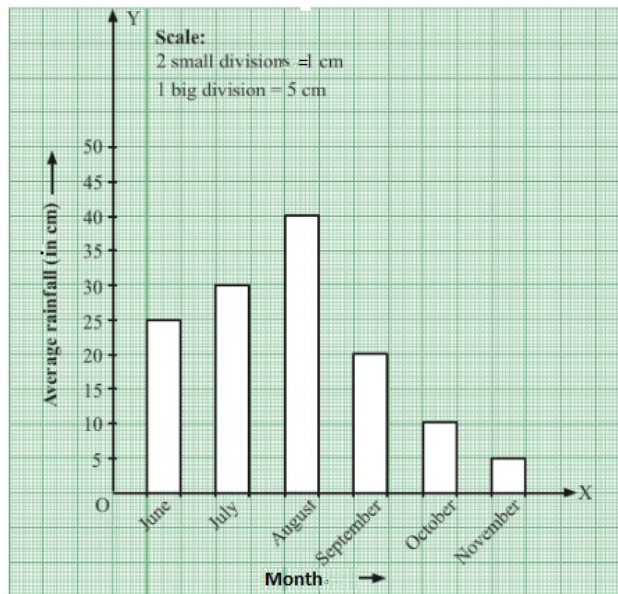
October = 20 small divisions = 2 big divisions

November = 10 small divisions = 1 big division



Step 5- Draw bars of equal width on the x-axis. The difference between the two is the same.

We get the following bar graph:



Q13

**Answer :**

We can draw the bar graph by following the given steps:

Step 1.- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2.- Along OX, write the names of the brands at the points that are taken at a uniform gap.

Step 3.- Choose the scale:

1 big division = 5%

2 small divisions = 1%

Step 4.- Heights of the various bars:

A = 90 small divisions = 9 big divisions

B = 50 small divisions = 5 big divisions

C = 30 small divisions = 3 big divisions

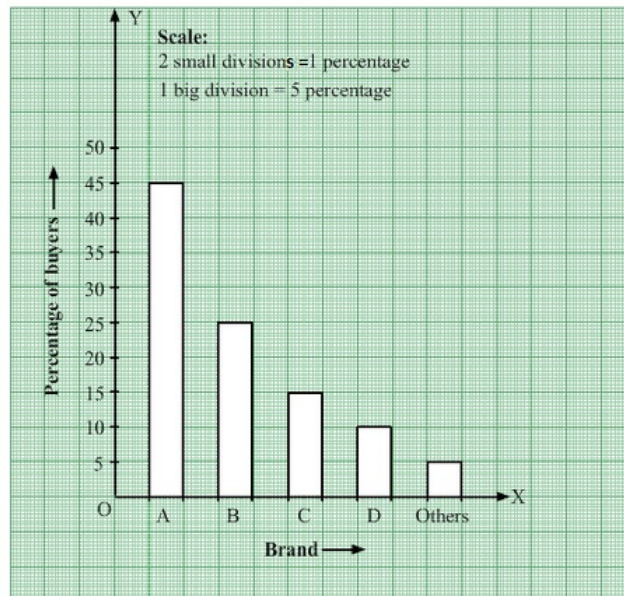
D = 20 small divisions = 2 big divisions

Others = 10 small divisions = 1 big division



Step 5.- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q14

**Answer :**

We can draw the bar graph by following the given steps:

Step 1- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2- Along OX, write the names of the week at the points that are taken at a uniform gap.

Step 3- Choose the scale:

1 big division = Rs 500

1 small division = Rs 50

Step 4- Heights of the various bars:

First week = 170 small divisions = 17 big divisions

Second week = 175 small divisions = 17 big divisions and 5 small divisions

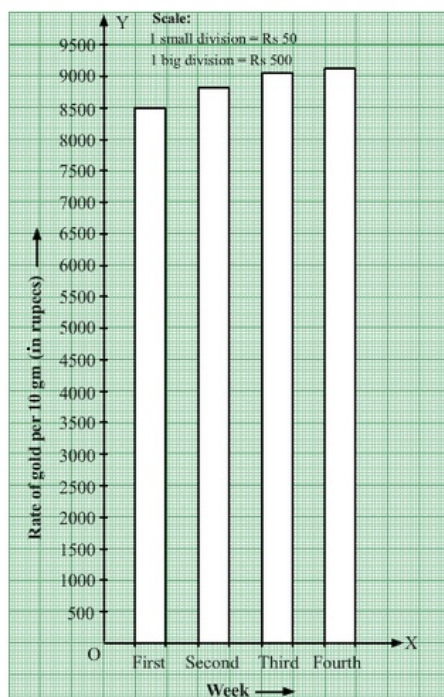
Third week = 181 small divisions = 18 big divisions and 1 small division

Fourth week = 185 small divisions = 18 big divisions and 5 small divisions

Step 5- Draw bars of equal width on the x-axis. The difference between the two bars should also be the same.

We get the following bar graph:





Q15

**Answer :**

We can draw the bar graph by following the given steps:

Step 1- On a graph paper, draw a horizontal line OX as x-axis and vertical line OY as y-axis.

Step 2- Along OX, write the names of the modes of transport at the points taken at a uniform gap.

Step 3- Choose the scale:

1 big division = 50 students

1 small division = 5 student

Step 4- Heights of the various bars:

School bus = 128 small divisions = 12 big divisions and 8 small divisions

Private bus = 72 small divisions = 7 big divisions and 2 small divisions

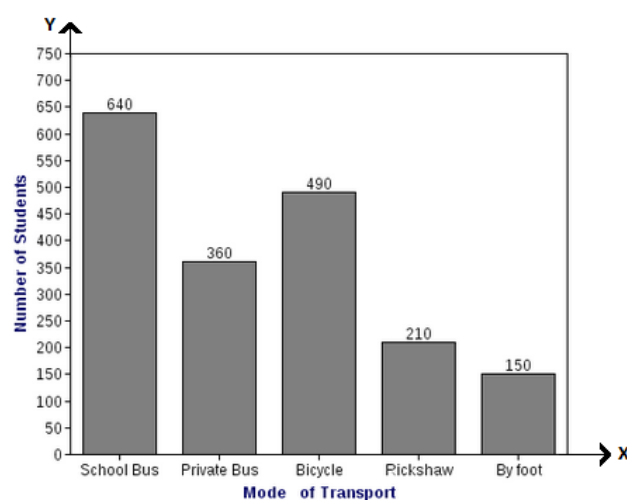
Bicycle = 98 small divisions = 9 big divisions and 8 small divisions

Rickshaw = 42 small divisions = 4 big divisions and 2 small divisions

By foot = 30 small divisions = 3 big divisions

Step 5- Draw the bars of equal width on x-axis. The difference between the two bars should also be the same.

We get the following bar graph:



Q16

**Answer :**

- (i) The bar graph shows the marks obtained by a student in an examination in various subjects.
- (ii) The student is very good in mathematics.
- (iii) The student is poor in Hindi.
- (iv) Marks scored in English = 60  
Marks scored in Hindi = 35  
Marks scored in mathematics = 75  
Marks scored in social science = 50  
Marks scored in science = 60

$$\therefore \text{Average marks} = \frac{60+35+75+50+60}{5} = \frac{280}{5} = 56$$

Q17

**Answer :**

- (i) The bar graph shows the number of members in each of the 85 families.
- (ii) 40 families have three members each.
- (iii) Number of people living alone =  $85 - (5+40+25+15)$   
 $= 85 - 85$   
 $= 0$
- (iv) The most common family is that with three members.  
Each such family has three members .

Q18

**Answer :**

- (i) Mount Everest is the highest peak and it's height is 8800 m.
- (ii) Height of the highest peak, Mount Everest = 8800 m  
Height of the second highest peak, Kanchenjunga = 8200 m  
$$\text{Ratio} = \frac{8800}{8200} = \frac{44}{41} = 44 : 41$$
- (iii) Heights of the peaks are 6000 m, 8000 m, 7500 m, 8200 m and 8800 m.

Heights in descending order:

8200 m, 8000 m, 7500 m, 6000 m