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1. The marks of a student in different subjects are given below.

Subject	Hindi	English	Maths	Science	Social Science
Marks	43	56	80	65	50

Draw a bar graph from the above information.

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the 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 = 1 mark
1 big division = 10 marks

Step 4. Then, the heights of the various bars are:
Hindi = 4 big divisions and then 3 small divisions = 43 small divisions
English = 5 big divisions and then 6 small divisions = 56 small divisions
Maths = 8 big divisions = 80 small divisions
Science = 6 big divisions and 5 small divisions = 65 small divisions
Social Science = 5 big divisions = 50 small divisions

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

The completed bar graph is shown below.

2. The following table shows the favorite sports of 250 students of a school. Represent the data by a bar graph.

Sports	Cricket	Football	Tennis	Badminton	Swimming
No. of Students	75	35	50	25	65

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the 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 = 1 student
1 big division = 10 students

Step 4. Then, the heights of the various bars are:
Cricket = 7 big divisions and then 5 small divisions = 75 small divisions
Football = 3 big divisions and then 5 small divisions = 35 small divisions
Tennis = 5 big divisions = 50 small divisions
Badminton = 2 big divisions and then 5 small divisions = 25 small divisions
Swimming = 6 big divisions and then 5 small divisions = 65 small divisions

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

The completed bar graph is shown below.

3. Given below is a table which shows the year wise strength of a school. Represent this data by a bar graph.

Year	2011 - 12	2012 - 13	2013 - 14	2014 - 15	2015 -16
No. of Students	800	975	1100	1400	1625

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 10 students
1 big division = 100 students

Step 4. Then, the heights of the various bars are:
2011-2012 = 8 big divisions = 80 small divisions
2012-2013 = 9 big divisions and then 7.5 small divisions = 97.5 small divisions
2013-2014 = 11 big divisions = 110 small divisions
2014-2015 = 14 big divisions = 140 small divisions
2015-2016 = 16 big divisions and then 2.5 small divisions = 162.5 small divisions

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

The completed bar graph is shown below.

4. The following table shows the number of scooters produced by a company during six consecutive years. Draw a bar graph to represent this data.

Year	2011	2012	2013	2014	2015	2016
No. of Scooters	11000	14000	12500	17500	15000	24000

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 200 scooters
1 big division = 2000 scooters

Step 4. Then, the heights of the various bars are:
2011 = 5 big divisions and then 5 small divisions = 55 small divisions
2012 = 7 big divisions = 70 small divisions
2013 = 6 big divisions and then 2.5 small divisions = 62.5 small divisions
2014 = 8 big divisions and then 7.5 small divisions = 87.5 small divisions
2015 = 7 big divisions and then 5 small divisions = 75 small divisions
2016 = 12 big divisions = 120 small divisions

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

The completed bar graph is shown below.

5. The birth rate per thousand in five countries over a period of time is shown below.

Country	China	India	Germany	UK	Sweden
Birth rate per thousand	42	35	14	28	21

Represent the above data by a bar graph.

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 2 small division = 1 unit
1 big division = 5 units

Step 4. Then, the heights of the various bars are:
China = 8 big divisions and then 4 small divisions = 84 small divisions
India = 7 big divisions = 70 small divisions
Germany = 2 big divisions and then 8 small divisions = 28 small divisions
U.K. = 5 big divisions and then 6 small divisions = 56 small divisions
Sweden = 4 big divisions and then 2 small divisions = 42 small divisions

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

The completed bar graph is shown below.

6. The following data shows India's total population (in millions) from 1961 to 2011.

year	1961	1971	1981	1991	2001	2011
Population (in millions)	360	420	540	680	1020	1200

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 20 millions
1 big division = 200 millions

Step 4. Then, the heights of the various bars are:
1961 = 1 big divisions and then 8 small divisions = 18 small divisions
1971 = 2 big divisions and then 1 small division = 21 small divisions
1981 = 2 big divisions and then 7 small divisions = 27 small divisions
1991 = 3 big divisions and then 4 small divisions = 34 small divisions
2001 = 5 big divisions and then 1 small divisions = 51 small divisions
2011 = 6 big divisions = 60 small divisions

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

The completed bar graph is shown below.

7. The following table shows the interest paid by India (in thousand crore rupees) on external debts during the period 1998-99 to 2002-03. Represent the data by a bar graph.

year	1998-99	1999-2000	2000-01	2001-02	2002-03
Interest (in thousand crore rupees)	70	84	98	106	120

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 1 thousand crore rupees
1 big division = 10 thousand crore rupees

Step 4. Then, the heights of the various bars are:
1998−99 = 7 big divisions = 70 small divisions
1999−2000 = 8 big divisions and then 4 small divisions = 84 small divisions
2000−2001 = 9 big divisions and then 8 small divisions = 98 small divisions
2001−2002 = 10 big divisions and then 6 small divisions = 106 small divisions
2002−2003 = 12 big divisions = 120 small divisions

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

The completed bar graph is shown below.

8. The air distances of four cities from Delhi (in km) are given below.

City	Kolkata	Mumbai	Chennai	Hyderabad
Distance from Delhi (in km)	1340	1100	1700	1220

Draw a bar graph to represent the above data.

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

Step 2. Along OX, write the name of the cities at points taken at uniform gaps.

Step 3. Choose the scale: 1 small division = 10 km
1 big division = 100 km

Step 4. Then, the heights of the various bars are:
Kolkata = 13 big divisions and then 4 small divisions = 134 small divisions
Mumbai = 11 big divisions = 110 small divisions
Chennai = 17 big divisions = 170 small divisions
Hyderabad = 12 big divisions and then 2 small divisions = 122 small divisions

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

The completed bar graph is shown below.

9. The following table shows the life expectancy (average age to which people live) in various countries in a particular year. Represent this data by a bar graph.

Country	Japan	India	Britain	Ethiopia	Cambodia
Life expectancy (in years)	76	57	70	43	36

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 1 year
1 big division = 10 years

Step 4. Then, the heights of the various bars are:
Japan = 7 big divisions and then 6 small divisions = 76 small divisions
India = 5 big divisions and then 7 small divisions = 57 small divisions
Britain = 7 big divisions = 70 small divisions
Ethiopia = 4 big divisions and then 3 small divisions = 43 small divisions
Cambodia = 3 big divisions and then 6 small divisions = 36 small divisions

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

The completed bar graph is shown below.

10. The following table shows the imports (in thousand crore rupees) made by India over the last five years. Draw a bar graph to represent this data.

year	2001-02	2002-03	2003-04	2004-05	2005-06
Imports (in thousand crore rupees)	148	176	204	232	180

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 1 small division = 2 thousand crore rupees
1 big division = 20 thousand crore rupees

Step 4. Then, the heights of the various bars are:
2001−02 = 7 big divisions and then 4 small divisions = 74 small divisions
2002−03 = 8 big divisions and then 8 small divisions = 88 small divisions
2003−04 = 10 big divisions and then 2 small divisions = 102 small divisions
2004−05 = 11 big divisions and then 6 small divisions = 116 small divisions
2005−06 = 9 big divisions = 90 small divisions

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

The completed bar graph is shown below.

11. The data given below shows the average rainfall in Udaipur from June to November of a certain year. Draw a bar graph to represent this information.

Month	June	July	Aug.	Sept.	Oct.	Nov
Average rainfall	25 cm	30 cm	40 cm	20 cm	10 cm	5 cm

Solution:-

We can draw the bar graph by following these steps:

Step 1. On a graph paper, draw a horizontal line OX and a vertical line OY. These two lines represents the x-axis and the y-axis respectively.

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

Step 3. Choose the scale: 2 small division = 1 cm
1 big division = 5 cm

Step 4. Then, the heights of the various bars are:
June = 5 big divisions = 50 small divisions
July = 6 big divisions = 60 small divisions
August = 8 big divisions = 80 small divisions
September = 4 big divisions = 40 small divisions
October = 2 big divisions = 20 small divisions
November = 1 big division = 10 small divisions

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

The completed bar graph is shown below.