

## 7. Joint Bar Graph

- **Bar graphs**

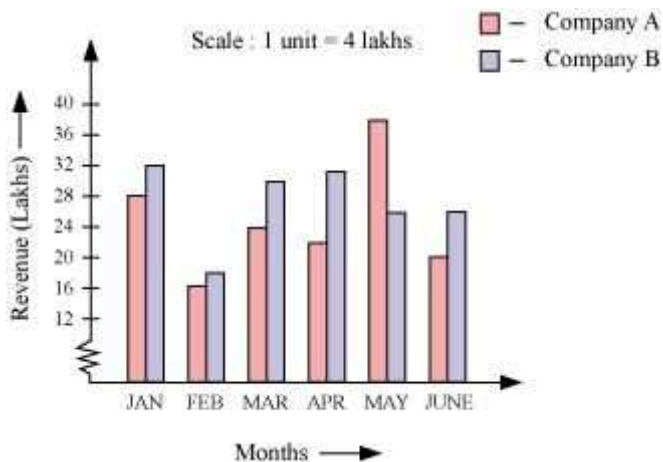
1. Bar graph is another way of representing the data using bars of uniform widths. The lengths of the bars depend upon the frequency and scale chosen.
2. Double bar graphs are also drawn as bar graphs. It is the collection of two sets of data on the same graph. It is helpful in comparing the two sets of data.

**Example:** The given data shows the revenue incurred (in lakhs) by two companies, A and B, in 6 months.

	January	February	March	April	May	June
A	28	16	24	22	38	20
B	32	18	30	31	26	26

Construct a double bar graph representing the given data. Find in which particular month is the revenue incurred by company A more than company B.

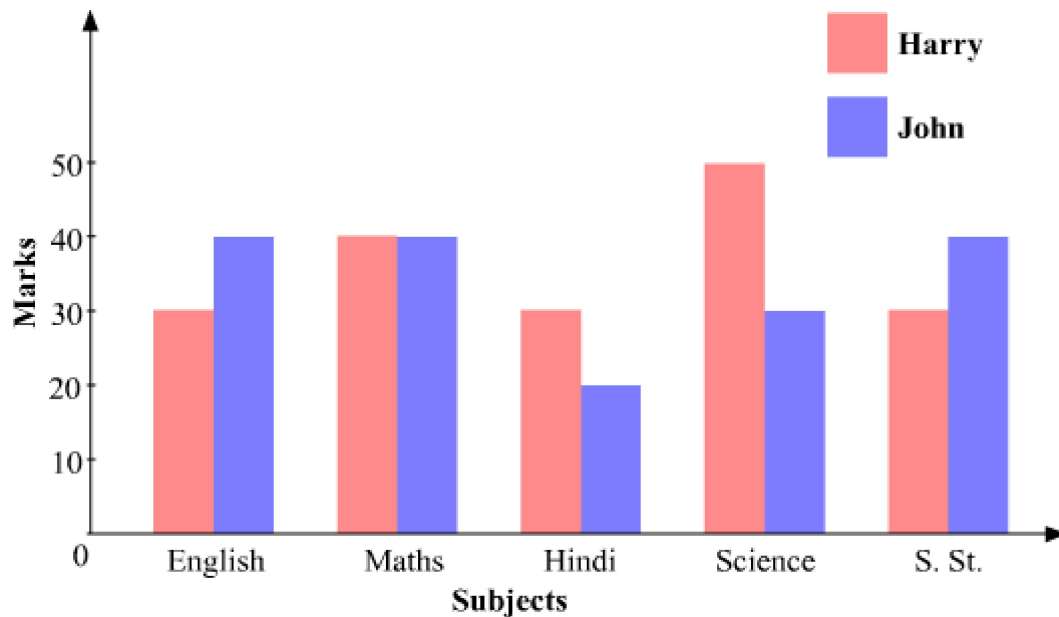
**Solution:** In the given data, the lowest value of observation is 16. Therefore, choosing the scale as 1 unit = 4 lakhs and drawing bars of corresponding lengths for each month, we obtain the bar graph as:



It can be seen that the height of the bar for the month of May is more for company A than for company B. Therefore, in the month of May, company A incurred more revenue than B.

- We can interpret the double bar graph by reading and analyzing it.

Example: The given double bar graph represents the marks obtained by Harry and John in different subjects.



We can analyze the given double bar graph and answer the following questions.

1. What is the difference between the marks scored by Harry and John in Science?

Answer: Marks scored by Harry in science = 50

Marks scored by John in science = 30

Difference =  $50 - 30 = 20$

2. In which subject both the students got equal marks?

Answer: Both the students got equal marks in Maths.

3. Who is better in studies among Harry and John?

Answer: Total marks obtained by Harry =  $30 + 40 + 30 + 50 + 30 = 180$

Total marks obtained by John =  $40 + 40 + 20 + 30 + 40 = 170$

Total marks obtained by Harry is more than John. So, Harry is better in studies than John.