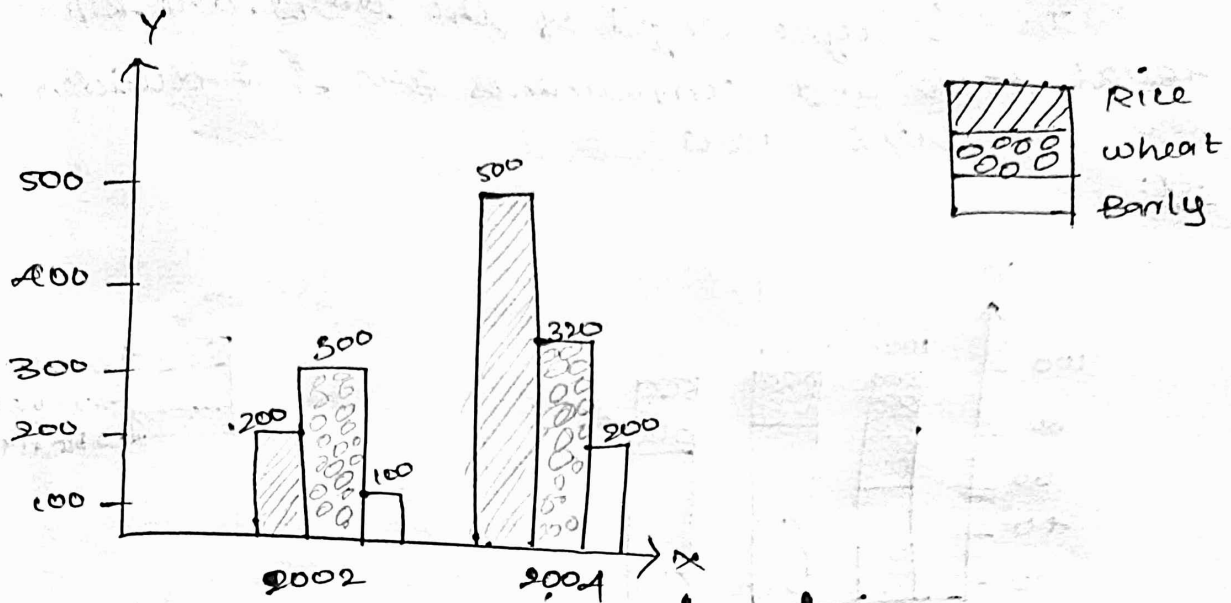


The production of food grains in India.



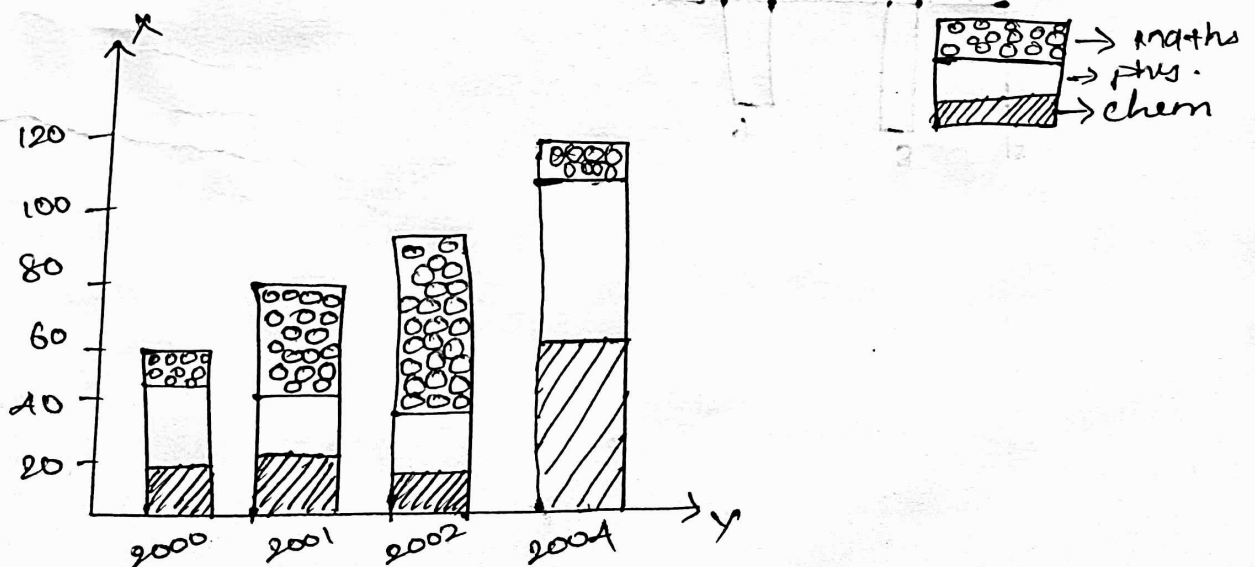
3) sub divided bar diagrams

These diagrams are used to represent the various parts of a whole.

In this type each bar representing the total value is sub divided into its different component parts.

Ex:

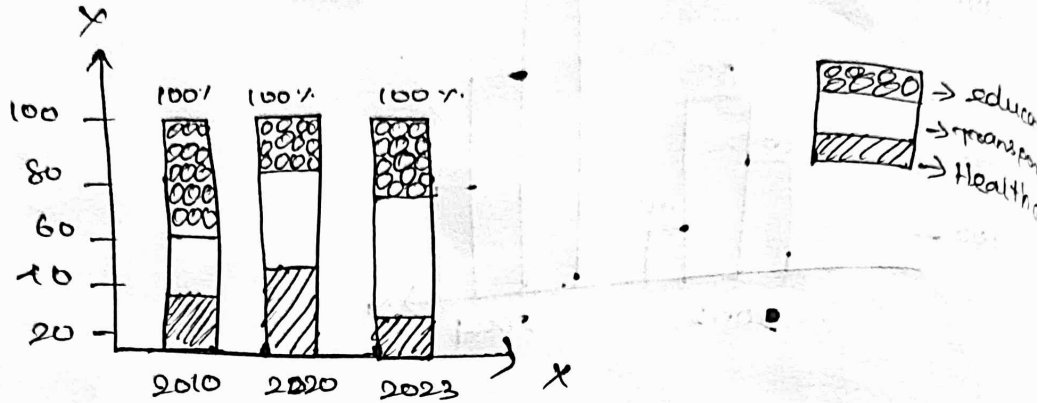
The no. of. Students enrolled in a university over a period of four years.



Percentage bar diagram

In this type length of the bars are kept equal, to 100 and components are sub-divided in these equivalent bars

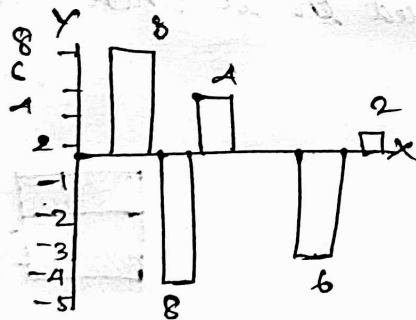
ex:



Deviation bar diagram

These are popularly use for representing net quantities such as net profit, net loss, excess etc... These bars can have both positive & negative

ex:



two dimensional diagram:

In this type length as well as width of the bars are considered.

pie diagram:

A pie diagram is pictorial representation of a statistical data with several sub-division in a circular form. The various component values are converted into degrees by taking 360°

example:

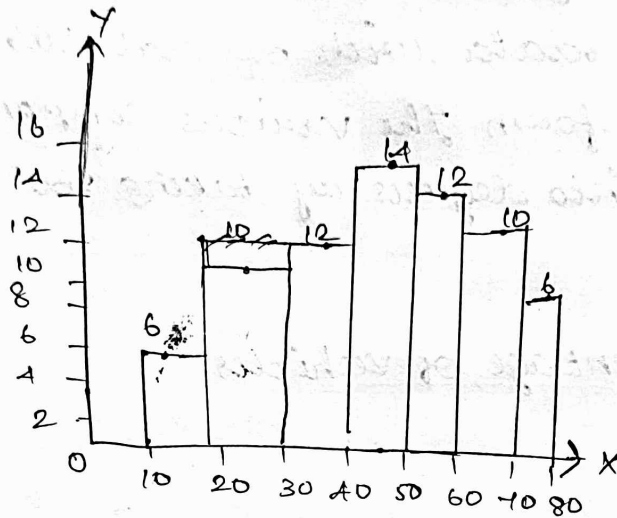
The percentage of vehicles

Histogram:

It is one of the most important and useful method of representing frequency distribution of a continuous series.

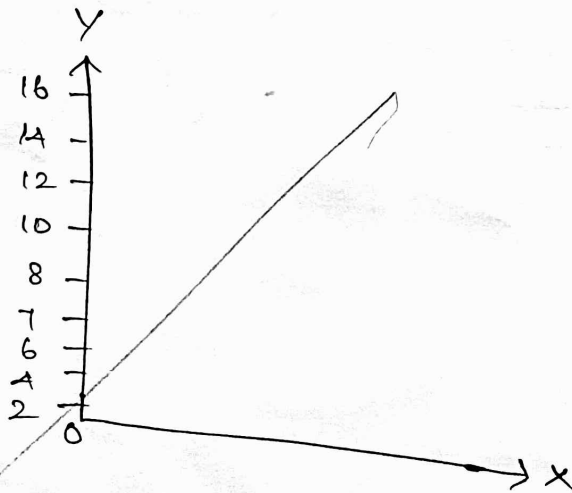
In a continuous series the class intervals may be equal as well as unequal.

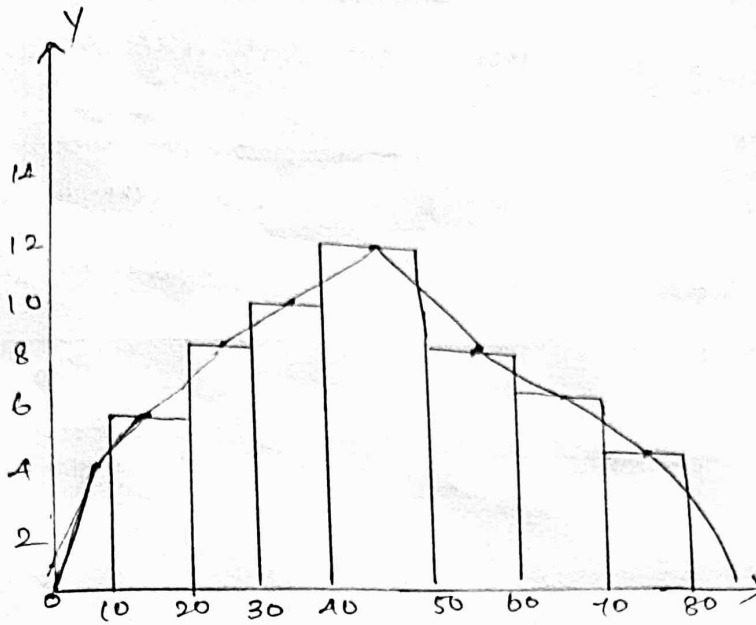
Ex:



Frequency polygon:

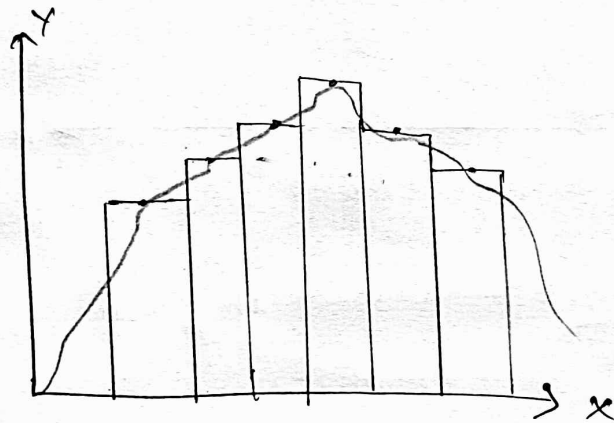
The frequency polygon is the graph generally obtained by connecting the midpoints of the top of each rectangle of a histogram by a straight line.





Frequency curve:

When we use smother a frequency polygonal are get a frequency curve.

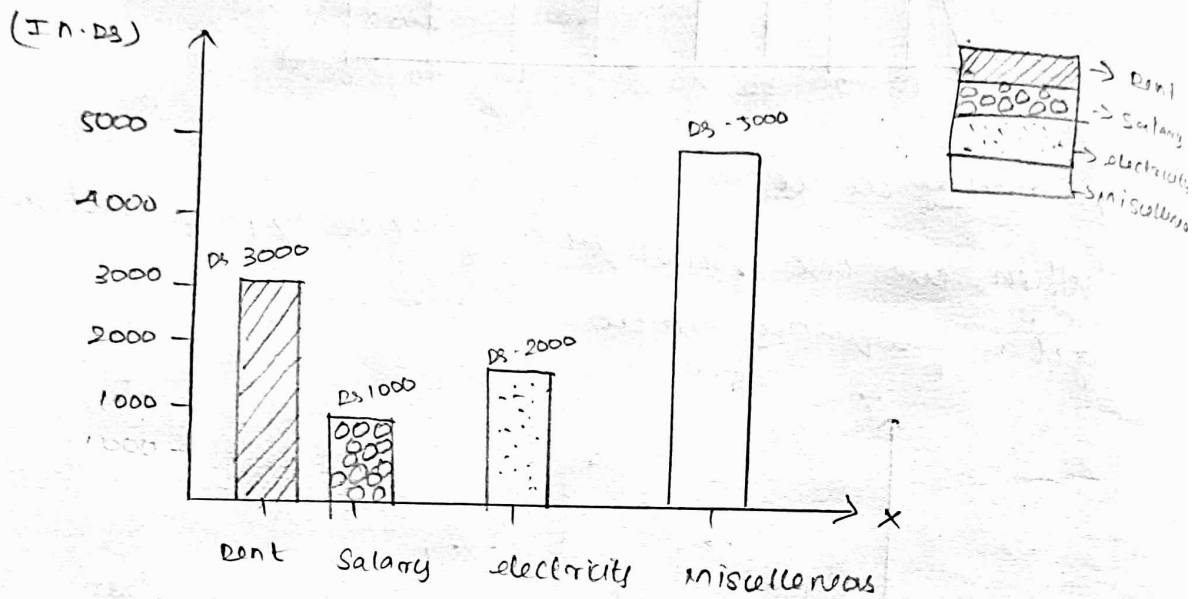


problem 1:

The following table shows the monthly expenditure of the farm.

| Item | Rent | Salary | electricity | Miscellaneous |
|-------------|------|--------|-------------|---------------|
| Expenditure | 3000 | 1000 | 2000 | 5000 |

Represent the above data by suitable bar diagram

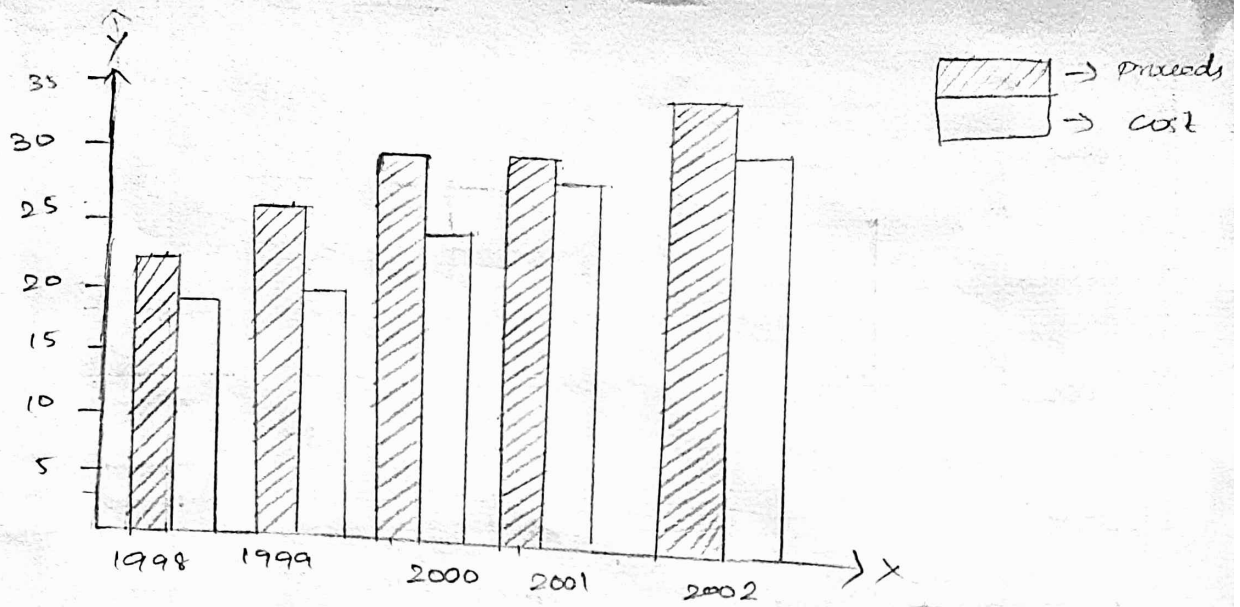


Monthly Expenditure of the farm.

problem 2:

Represent the following data by the suitable showing the different data proceeds and cost.

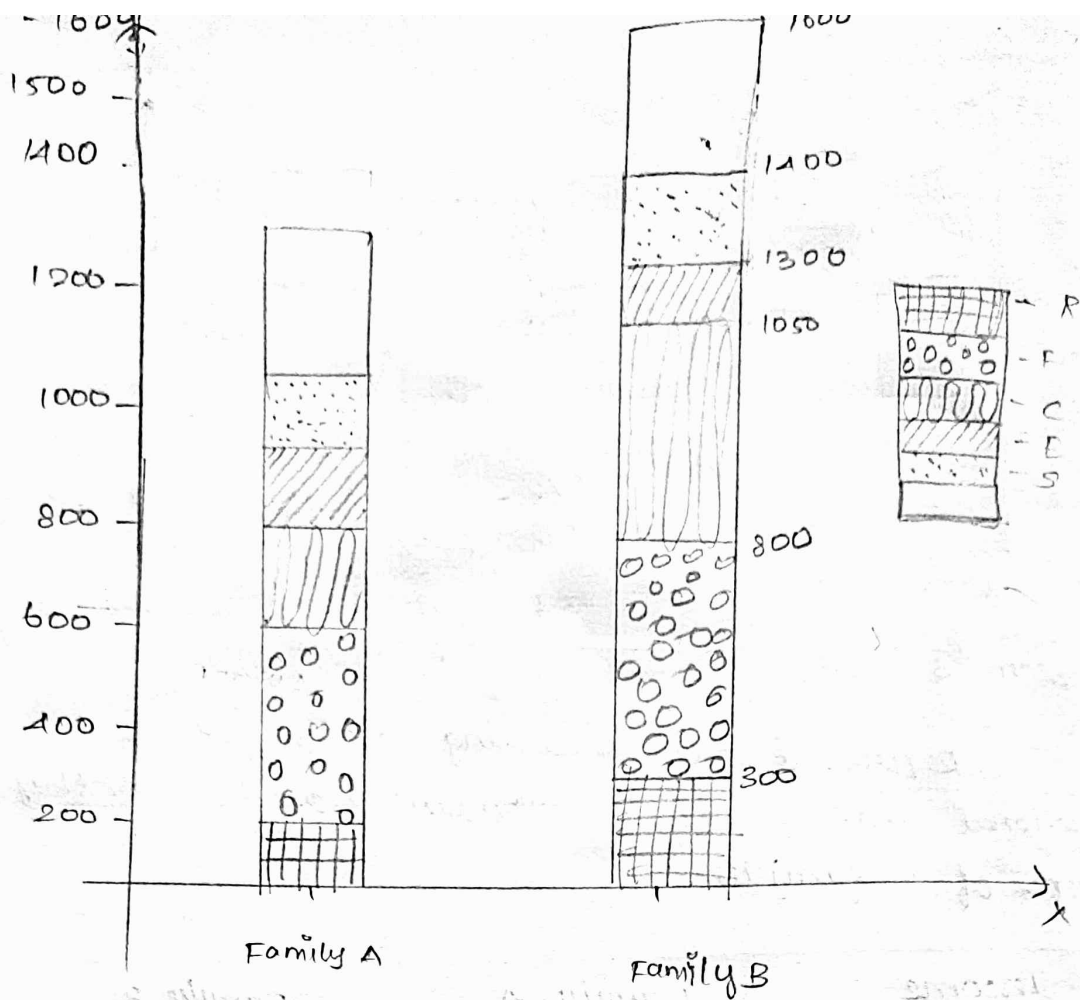
| Year | Total proceeds Rupees in 1000 | Total cost Rupees in 1000 |
|------|----------------------------------|------------------------------|
| 1998 | 22 | 19 |
| 1999 | 27 | 21 |
| 2000 | 29 | 26 |
| 2001 | 31 | 28 |
| 2002 | 25 | |



Problem 3

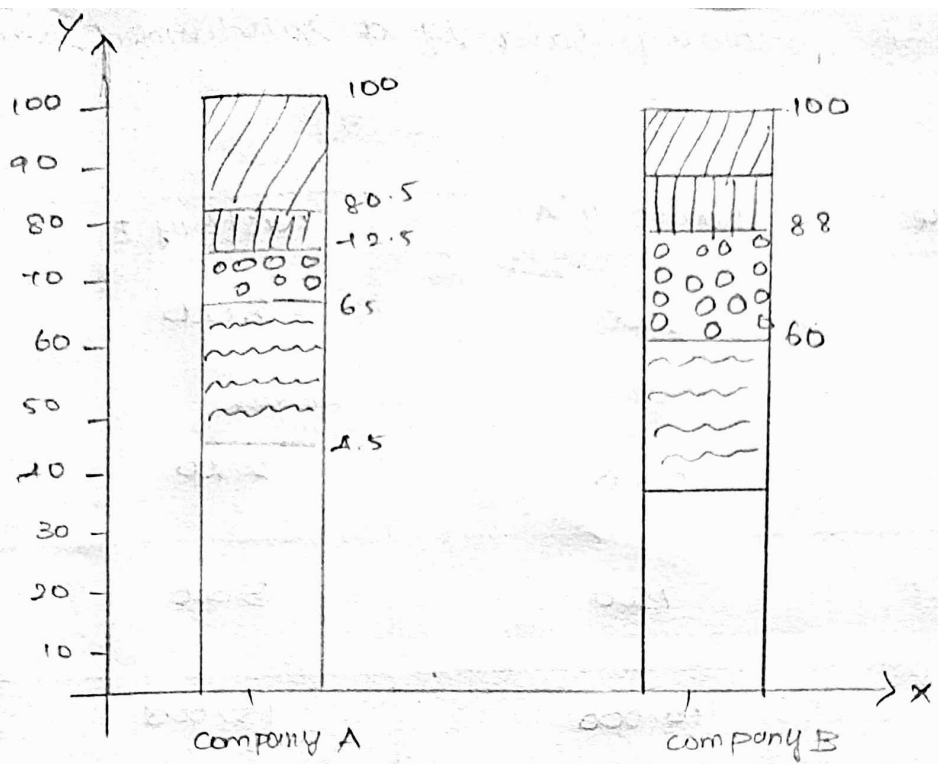
represent the following data for sub-divisional bar diagram. Distribution of monthly income of 2 families.

| Income | Family A | Family B |
|---------------|----------|----------|
| Rent | 200 | 300 |
| Food | 400 | 500 |
| clothing | 200 | 250 |
| education | 100 | 250 |
| Saving | 150 | 100 |
| miscellaneous | 300 | 200 |



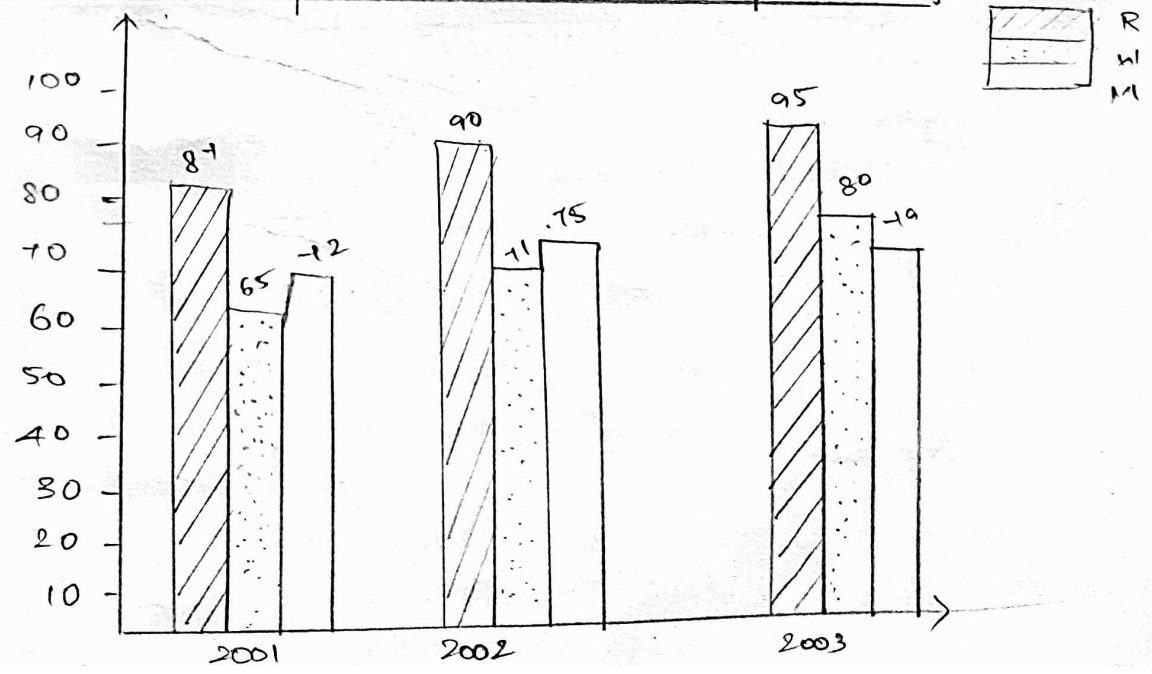
A. Draw a percentage bar diagram following data

| Expenditure | company A | company B |
|-------------|------------------------------------------|-----------------------------------|
| wages | $450 \frac{450}{1000} \times 100 = 45$ | $700 \frac{700}{2000} \times 100$ |
| materials | $200 \frac{200}{1000} \times 100 = 20$ | $500 \frac{500}{2000} \times 100$ |
| power | $75 \frac{75}{1000} \times 100 = 7.5$ | $350 \frac{350}{2000} \times 100$ |
| maintenance | $80 \frac{80}{1000} \times 100 = 8.0$ | $175 \frac{175}{2000} \times 100$ |
| profit | $195 \frac{195}{1000} \times 100 = 19.5$ | $275 \frac{275}{2000} \times 100$ |
| total | 1000 | 2000 |



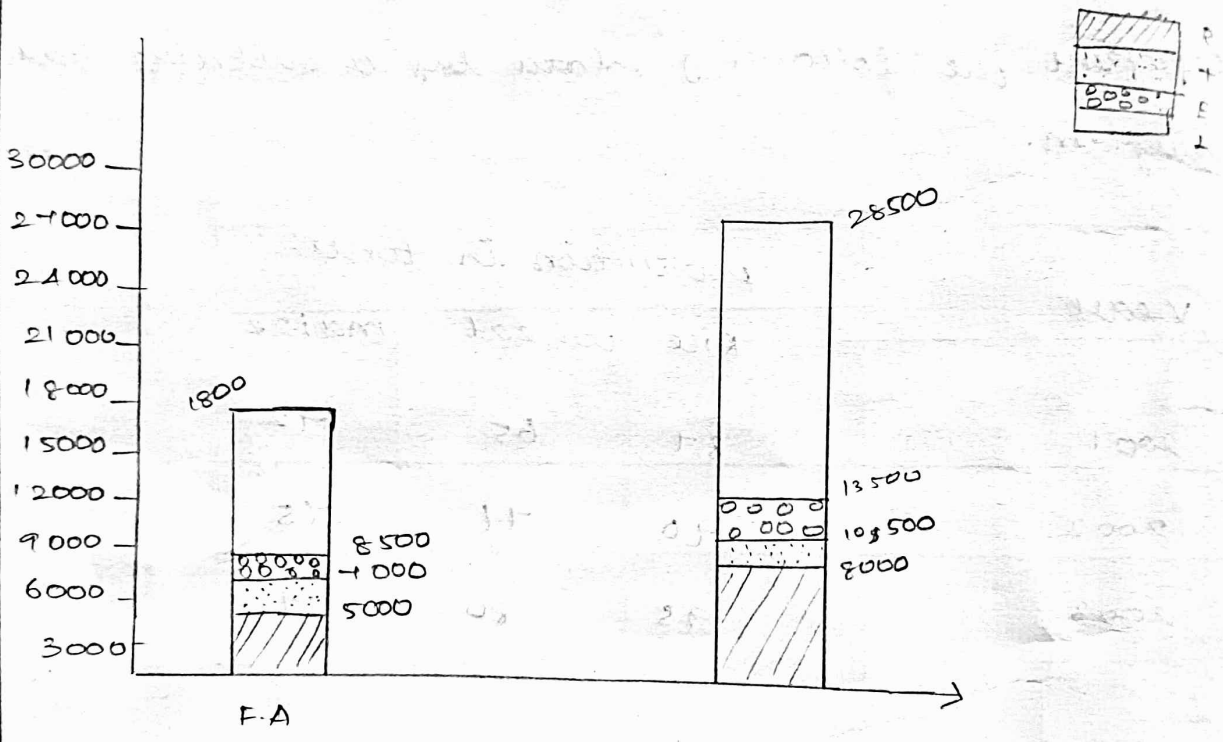
Represent the following data by a suitable bar diagram.

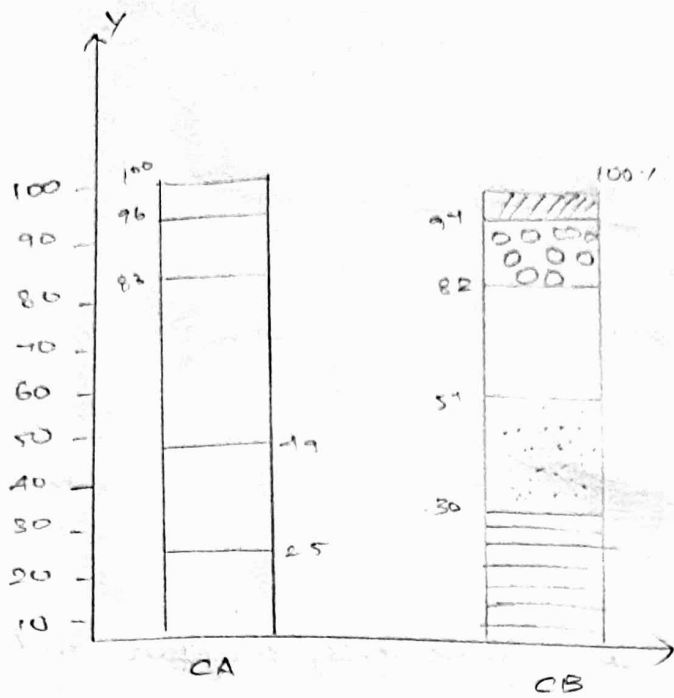
| Year | production in tons | | |
|------|--------------------|-------|-------|
| | Rice | wheat | maize |
| 2001 | 87 | 65 | 72 |
| 2002 | 90 | 71 | 75 |
| 2003 | 95 | 80 | 79 |



Represent the following data in a diagram

| Expenditure | Factory A | Factory B |
|-------------|-----------|-----------|
| Rent | 5000 | 8000 |
| Transport | 2000 | 2500 |
| Electricity | 1500 | 3000 |
| Labour | 10000 | 15000 |

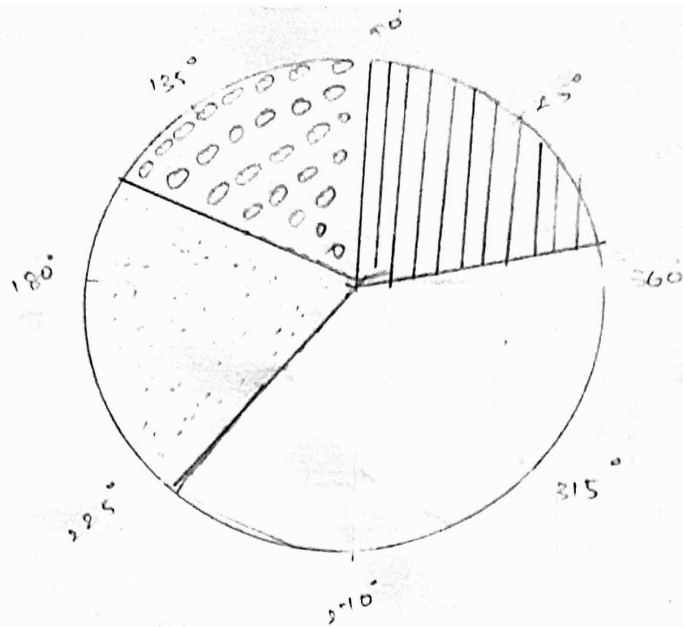




8 Draw a pie diagram to represent a following population in a town.

| Males | females | Girls | Boys | total. |
|-------|---------|-------|------|--------|
| 2000 | 1800 | 4200 | 2000 | 10000 |

| | total number | In degree form. |
|--------|--------------|---------------------------------------------|
| Ma | 2000 | $\frac{2000}{10000} \times 360 = 72^\circ$ |
| fe | 1800 | $\frac{1800}{10000} \times 360 = 65^\circ$ |
| gi | 4200 | $\frac{4200}{10000} \times 360 = 151^\circ$ |
| Bo | 2000 | $\frac{2000}{10000} \times 360 = 72^\circ$ |
| total. | 10000 | |



construct a histogram and frequency polygon and distribution.

| | | | | | |
|-----------------|-------|-------|-------|-------|----|
| Marks | 21-27 | 28-34 | 35-41 | 42-48 | 49 |
| NO. of Students | 2 | 3 | 10 | 18 | 15 |

| | |
|-------|-------|
| 56-62 | 63-69 |
| 5 | 6 |

| | | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|
| Marks | 21.5-27.5 | 28.5-34.5 | 34.5-41.5 | 41.5-48.5 | 48.5-55.5 |
| NO. of Stu | 2 | 3 | 10 | 18 | 15 |
| 55.5-62.5 | 62.5-69.5 | | | | |
| 5 | 6 | | | | |