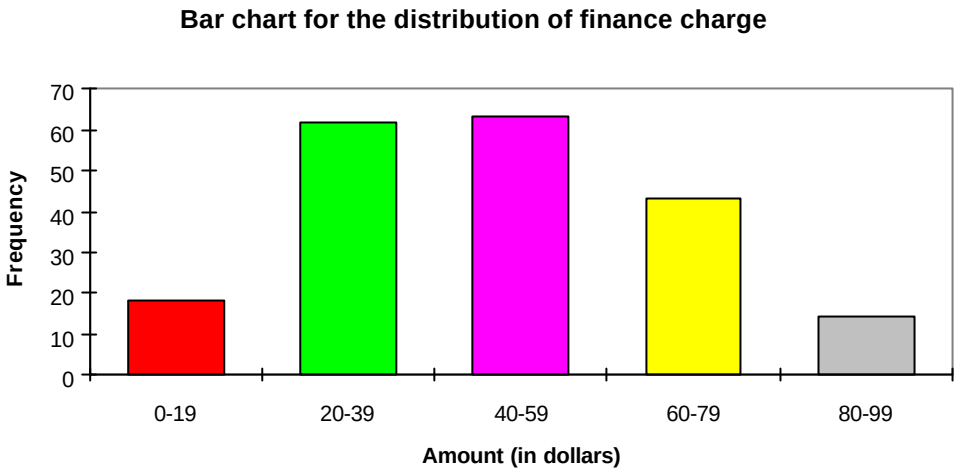
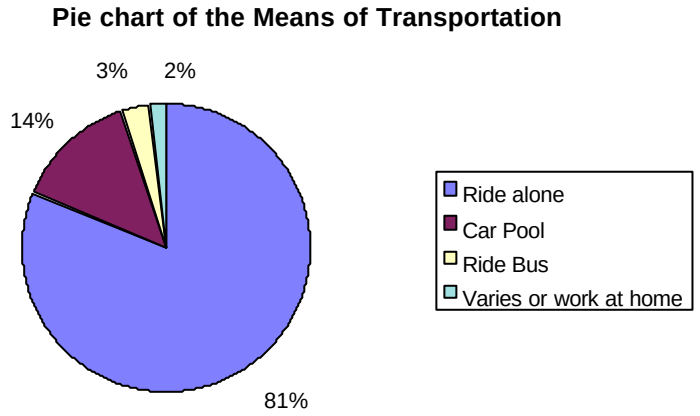
Seminar 6 (Suggested Solution)

1.



Notes: i. there must be space between bars
ii. title of the chart, label of the axes must be included.
iii. legend may also be included.

2. The central angles of the sectors are 291.6, 50.4, 10.8 and 7.2 degrees.



Note: the slices should be arranged by the percentages in either descending or ascending order

3. The distribution are shown as follows:

Students Absence	0	1	2	3	4	5	6	Total
Frequency	6	14	9	6	3	1	1	40

4. The frequency distribution is as follows:

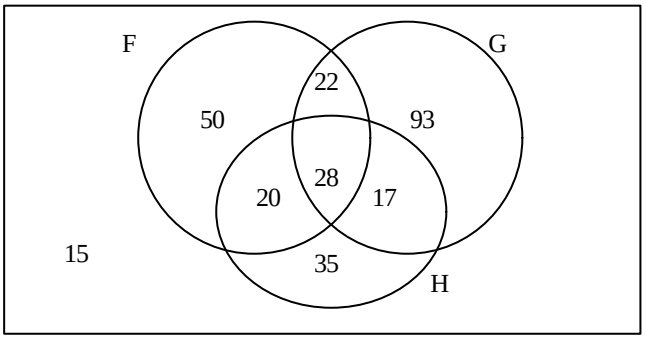
	Frequency
Car	20
Train	10
Plane	13
Bus	7
Total	50

5. We must first determine what percentage of total sales revenue was attributable to division W, as follows:

Division	Ratio of Sales	Percentages of Sales
V	3 x 2 = 6	6 x 100/9 = 66.7
W	2 x 1 = 2	2 x 100/9 = 22.2
X	1	1 x 100/9 = 11.1
	9	100

the height of the segment representing W' s sales is therefore 15 cm x 22.2% = 3.33 cm

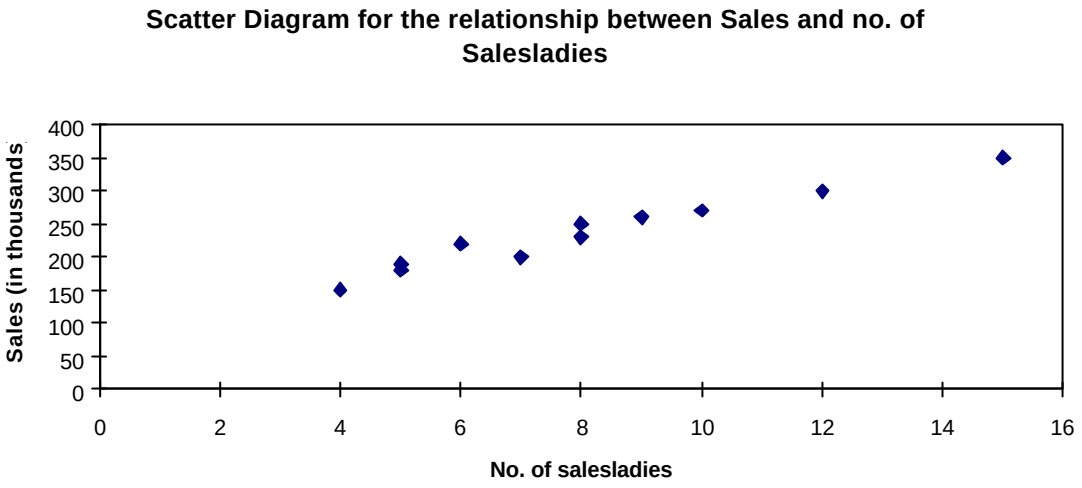
6. The Venn diagram, with all the numbers entered, is as follows:



22 = 120 - (50 + 20 + 28) people like F and G but not H
160 - (22 + 28) = 110 people like G but not F
100 - (20 + 28) = 52 people like H but not F
280 - (120 + 15) = 145 people like G or H or both, but not F
since 110 + 52 = 162, 162 - 145 = 17 people must like G and H, but not F,
so 110 - 17 = 93 people like G only, and
52 - 17 = 35 people like H only.

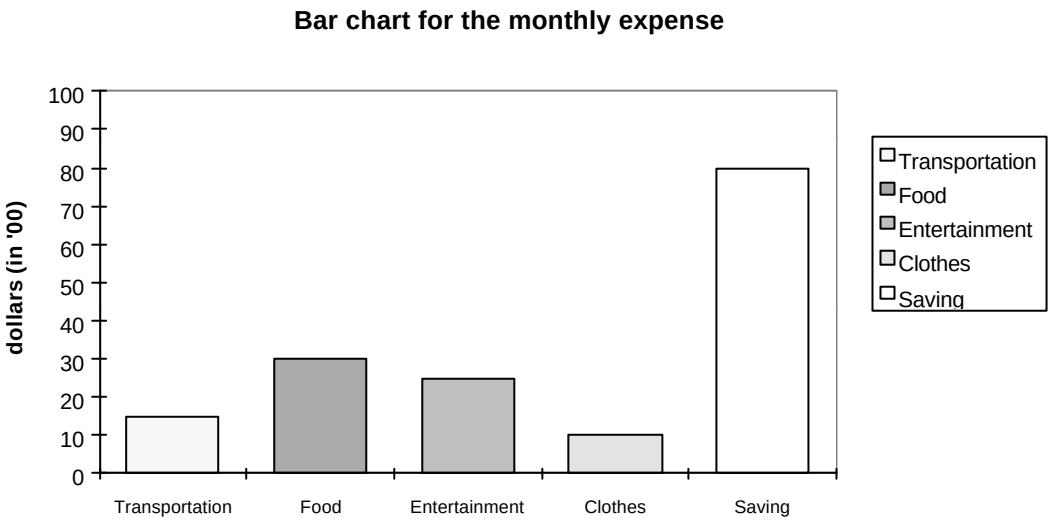
7. If a bar for 2,120 employees (the 1998 total) was 10.6 cm high, the scale must be 10.6/2,120 = 0.005 cm per employee.
A segment for 1,450 employees (1999, grade 4) will therefore have a height of 1,450 x 0.005 = 7.25 cm

8a.

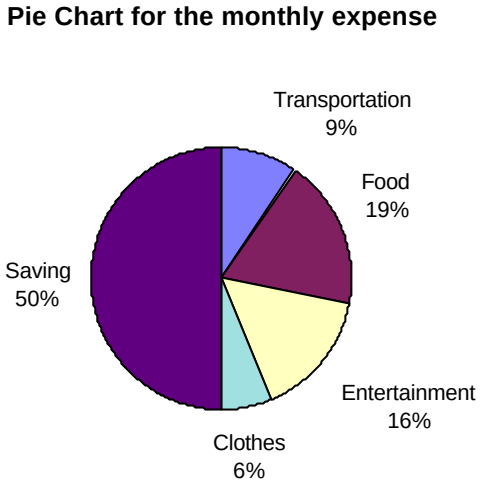


8b. It shows ***strongly linear positive*** relationship.

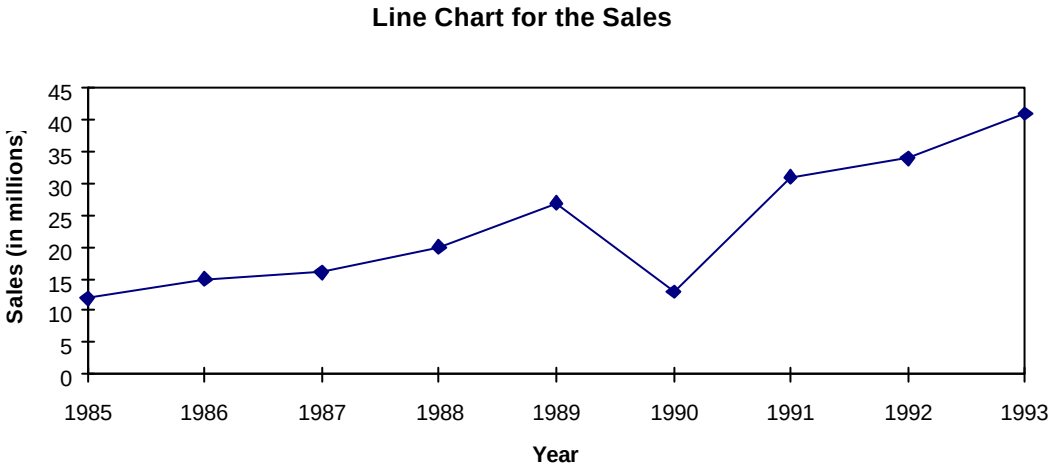
9a.



9b.



10a.



10b. There is a sudden drop in 1990, but the ***overall trend is increasing***.