Research Methods and Statistics

Problem Set 1

Topics Covered: *Frequency tables, histograms, Pareto charts*

Exercise 1. The monthly takehome salaries of 25 employess are given by the following data

Employee	Salary(€)	Employee	Salary(€)	Employee	Salary(€)
1	1988	2	1521	3	1745
4	1413	5	1011	6	2344
7	988	8	1479	9	2984
10	3141	11	1281	12	2745
13	985	14	1344	15	2768
16	2981	17	1121	18	1047
19	2088	20	991	21	1946
22	2186	23	2521	24	2345
25	2988	–	—-	–	—-

Using this data answer the following:

(a) Create appropriate categories to classify this data.

(b) Using these categories, create a frequency distribution table for the data.

(c) Create a cumulative frequency distribution for this data.

(d) Create a histogram to represent this data.

(e) Which salary-range has the highest frequency?

(f) Which salary-range has the lowest frequency?

Exercise 2. The IT deparment in a large company perfoms a survey of the computers to determine to types of faults that must be addressed and the number of those faults. The data is given in the table below:

Fault	**Frequency**
Missing O.S.	5
Faulty Hard drive	15
Slow Internet	11
Broken Keyboard	9
Slow Computer	27
Not Booting	4
Missing Peripherals	12

Using this data answer the following:

(a) Identify the data type.

(b) Create cumulative frequency table for this data.

(c) Create a cumulative relative frequency table for the data.

(d) Create a Pareto chart to represent this data.

(e) Which porblems should be addressed first to fix at least 30% of the faults?

(f) Which porblems should be addressed first to fix at least 50% of the faults?