

**201 Quiz 1-
Dr. Bensmail**

**September 1 , 2004
Key-Answer**

- 1- Please write your first and last name in each page and your SS# to avoid missing points**
- 2- Any attempt of copying from each other will result in a zero**
- 3- Good luck**

Question 1:

Calculate the Five-point summary and provide the boxplot of the following data:

165	182	208	226	282	292	90	235
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Five-point summary

First we rank the data:

90	165	182	208	226	235	282	292
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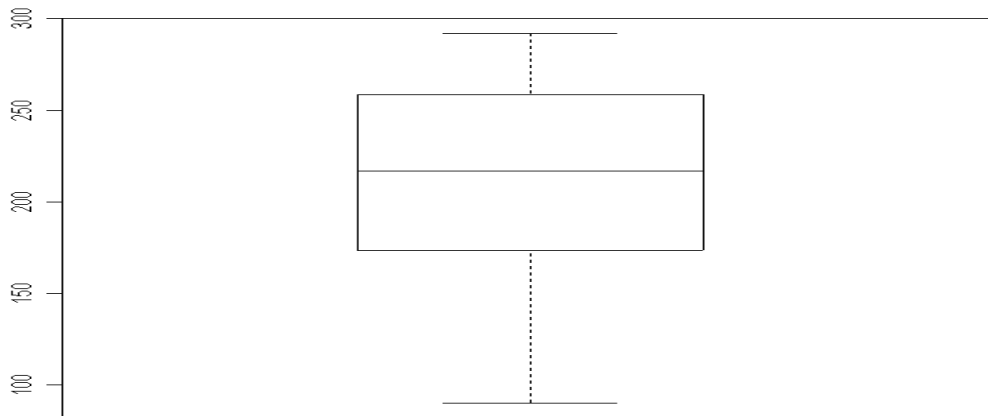
Min=90 (0.5points) Max=292 (0.5 points)

Q2 (Median)=(208+226)/2=217 (0.5 points)

Q1=(165+182)/2=173.5 (0.5 points)

Q3=(235+282)/2=258.5 (0.5 points)

Boxplot (2 points)



Question 2:

Observe the data below:

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1|0
2|3
3|1
4|0
5|112
5|00001
6|39

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We read 1|0 as 10 etc..

1. Calculate the mean, median and the mode
2. What is the shape of the stemplot described above?

1. Data are: 10, 23, 31, 40, 50, 50, 50, 50, 51, 51, 51, 52, 63, 69

Mean= 45.78 (0.5 points)

Median=50 (0.5 points)

Mode=50 (0.5 points)

2. The stemplot is skewed to the left (1 points)

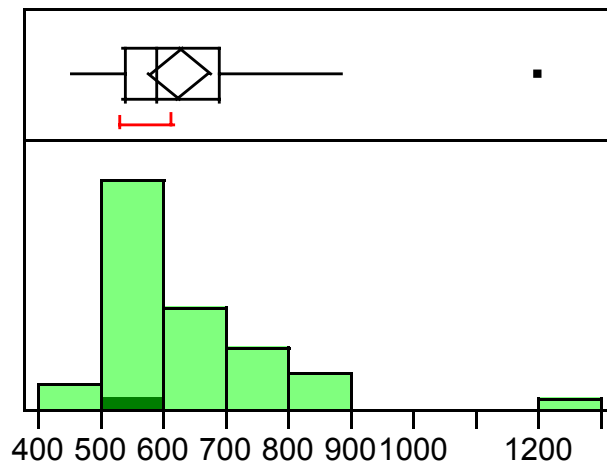
Question 3:

What characteristics of a refrigerator are important in determining its price? We consider here several characteristics of a refrigerator:

- a- Price
- b- Number of shelves in the refrigerator and freezer
- c- Size of the refrigerator in Cubic feet
- d- Size of the freezer compartment in Cubic feet
- e- Average amount of money spent per year to operate the refrigerator
- f- Number of feature

1- Specify what type of the variable a, b, c, d, e, f are? (which means, which are qualitative and which are Quantitative)

1. Quantitative are: a, c, d, e (0.5 points)
Qualitative are: b, f (0.5 points)



2- Discuss the shape and particularity of the distribution of the variable Price

The histogram of Price is skewed to the right (1 points)

Question 4:

The following are the grade of a UT students Math class.

- 1- Provide a histogram of the data with 6 classes.
- 2- Provide a Stemplot of the data.

Rank data:

63	66	67	68	71	73	75	76	78	81	81
82	82	84	85	87	90	91	92	93	93	95

Range of data= Max –min= 95-63=32

Width of the classes= Range/#classes=32/6~6

Table of frequencies:

63-69	4 or 4/22
69-75	3 or 3/22
75-81	4 or 4/22
81-87	5 or 5/22
87-93	5 or 5/22
93-99	1 or 1/22

Here any histogram based on the above table is correct

(1 points)