

## Boxplot Exercise

Name \_\_\_\_\_

1. The test scores from a group of 10<sup>th</sup> grade students were: 76, 89, 88, 82, 95. Find the values of following statistics.

Sample mean =

Sample standard deviation =

Coefficient of variation =

The data collected from a random sample of college students is listed below. Use it to answer the following questions.

Subject ID	1	2	3	4	5	6	7	8	9	10	11	12	13
Math Placement Exam Score	36	35	37	49	26	27	23	30	31	33	25	26	40
Number of visits to school library website	4	40	15	20	32	30	51	29	25	83	24	25	18
Race*	W	W	A	W	W	B	W	A	B	B	A	W	A
Science/Engineering Major**	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	Yes

\* W = White; B = Black.; A = Asian.

\*\* Yes = Science/Engineering Major; No = Not Science/Engineering Major.

2. Make a chart to display and compare the Number of Visits to School Library Website between Science/Engineering Majors versus Non-Science/Engineering Majors, and make comments from your observation of the chart.

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3. Find the 5-number summary and other statistics asked below for the **Number of Visits to School Library Website** variable, make a **boxplot**, and identify **mild** and **extreme outliers**. [15 points]

Minimum =

$Q_1$  =

Median =

$Q_3$  =

Maximum =

IRQ =

Upper Outer Fence is at =

Upper Inner Fence is at =

Lower Inner Fence is at =

Lower Outer Fence is at =

Mild Outliers =

Extreme Outliers =

The distribution is (Circle the right one.)

- 1) skewed to the right,
- 2) skewed to the left,
- 3) no clear skewedness.

[Put your boxplot here!]