Standard Deviation, Data Displays & Measures of Central Tendency Practice

1) John wants to know if compost improves the growth of plants. So he put compost in the ground floor garden plants and did not put it in the garden on the terrace. Use your calculator to find the standard deviation of the following data sets, and then compare these values.

Ground floor garden plant height (inches) : 15, 10, 19, 17, 16, 12, 20, 22, 18, 35, 25, 14, 28, 29, 30

Standard Deviation =

Terrace garden plant height (inches): 6, 7, 10, 12, 18, 17, 14, 8, 9, 23, 20, 21, 19, 27, 26

Standard Deviation =

Comparison:

2) Jacob is trying to determine if the help of an after school education TV program helps improve test scores. Class 1 has the help of an after school education TV program. Class 2 does not have an educational TV program. Use your calculator to find and compare the standard deviation of the test scores for each of the classes.

Class 1: 40, 80, 95, 88, 78, 77, 84, 70, 65, 55, 68, 50, 60

Standard Deviation =

Class 2: 58, 78, 91, 95, 80, 92, 74, 50, 67, 68, 60, 81, 59

Standard Deviation =

Comparison:

The following data set contains the top speeds, in miles per hour, of some high-performance sport cars. Use this data set to answer the following questions.

217, 205, 214, 210, 215, 215, 217, 208, 217, 217, 212, 214, 212, 214, 201, 198, 195, 189, 201, 188

3) Make a dot plot of the given data. Be sure to give an appropriate title and label your axis!

4) Use your dot plot to describe the shape of the distribution of the data set.

5) Construct a stem & leaf plot of the data. Be sure to include an appropriate title and a key!

6) Find the five number summary & the interquartile range of the data set.

Min = Q1 = Median = Q3 = Max = IQR =

7) Use your five number summary to construct a box plot of the data set. Be sure to give an appropriate title and label your axis!

8) Find the mean, median, mode and range of the data set.