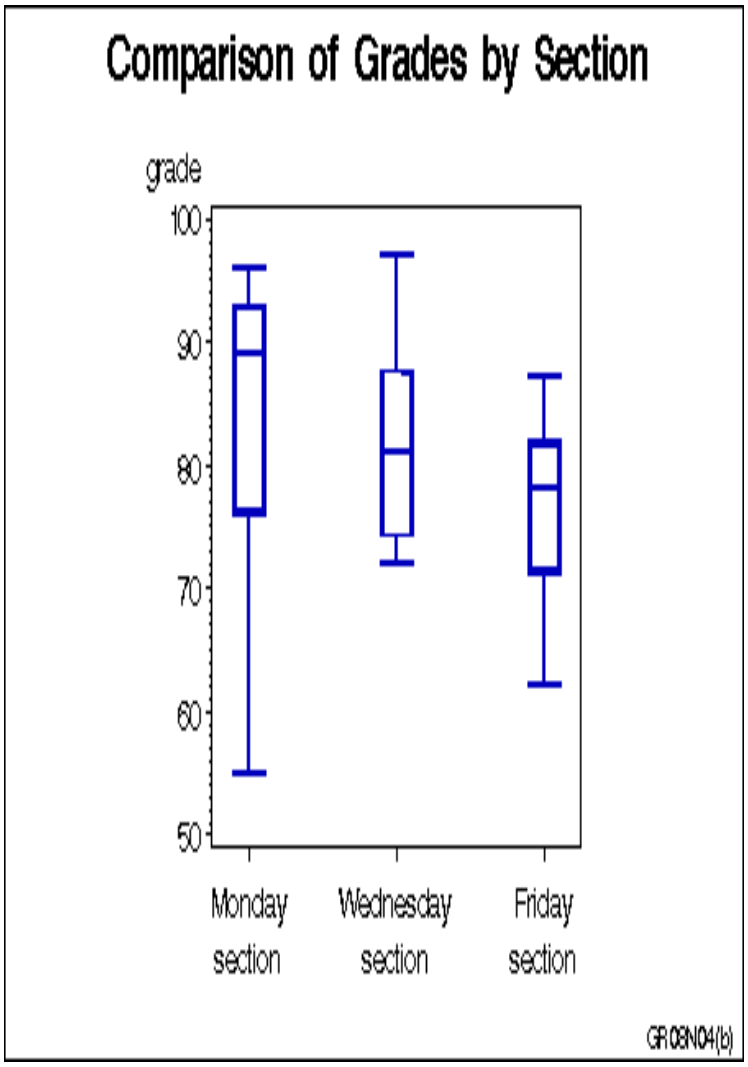
Math 175 – Fall 2016
Assignment: G4
Due: In class today

Names:_____
_____
_____

(1) For the vertical boxplots shown below, draw three histograms that *roughly* show the three distributions.



(2) Circle the best description of each of the three distributions' shapes from the boxplots above.

Monday:	Skewed Left	Symmetric	Skewed Right
Wednesday:	Skewed Left	Symmetric	Skewed Right
Friday:	Skewed Left	Symmetric	Skewed Right

(3) For this dataset of Math 175 final exam scores,

6.8	51.95	61.1	66.23	70.13	76.62	85.71
40.25	53.25	62.5	66.23	70.89	77.92	86.1
41	53.25	63.64	66.7	71	79.22	87.01
44.68	54.2	63.64	66.7	72.73	80.52	89.61
45.8	54.55	63.64	66.7	73.6	81.82	90.3
49.35	58.3	63.9	68.83	74.03	81.82	93.1
50	59.7	63.9	69.4	76.4	83.3	93.1
51.15	61.1	64.94	69.4	76.62	84.42	93.1
		Mean =	**67.35**			
		Standard Deviation =	**16.03**			

a. The student's score of 64.94 is the_____ percentile.

b. The 75th percentile is _____ .

c. The *z*-score for the value 49.35 is _____.

d. 64.94 is _____ of a standard deviation from the mean (percentage).

e. A score of _____ would have a *z*-score of 2.25.

f. Find the 5-Number Summary and draw a boxplot for the data set in the space below.

g. Determine which, if any, of the data in this set are outliers.

(4) Argue for or against the accuracy of following statements.

If \$100K is the 80th percentile for salaries in a dataset, then \$50K is the 40th percentile.

The percentile ranks for SAT math scores of 650 and 530 were 90 and 60, respectively. Therefore a score of 590 is the 75th percentile.

(5) Identify at least two outliers within the respective variable in the Student Survey Data set and show computations to confirm that they are outliers. (Note: this data set is available at the course website in Excel form in case you want to download and sort the data).