Analyzing numerical data

name:_____

1. Handspans and foot lengths are measured in millimeters and were collected from the same people. These data in their current order are not paired (each set of numbers was sorted separately)

Handspan	Foot length
179	215
180	240
180	250
180	250
182	252
190	257
195	265
200	265
200	270
205	270
205	272
206	275
210	290
210	300
210	300
215	310
215	315
220	315
226	320
240	330
266	355

a. For the data handspan and the data foot length (separately), find the minimum, maximum, median, upper and lower quartiles and the interquartile range.

b. Make a boxplot of the two data sets on the same axis.

c. For the data handspan and the data foot length (separately), find the mean and mean absolute deviation.

d. Choose an appropriate interval (so that each histogram will have between 5 and 12 bars) and graph each data set (handspan and foot length) separately with a histogram. Use the same axes for both histograms.

e. Are the data sets approximately symmetric or are they notably asymmetric? Which measurement of spread is recommended for this distribution?

f. Write a several sentences comparing the two data sets from the information in these graphs.

g. Make a stem and leaf plot for the two data sets.

2. This is the same hand/foot data as in #1, but this time the data is paired (measurements from a single individual are on the same line.

- a. Plot the data in a scatter plot.
- b. Tell whether the data appears to be positively correlated, negatively correlated or not correlated.
- c. Draw in an approximate line of best fit and find the equation of your line.

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span	length						
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