Minitab Assignment #2

Part One

In this assignment you will learn to do summary statistics such as mean, median, standard deviation, and the five-number-summary. You will also learn to construct boxplots and stem-and-leaf diagrams. You will be expected to save each worksheet and graph separately. In addition, each graph and worksheet that you create should be saved as part of 'project 2'.

1. First type your name in the Session window.

2. For this exercise, you will use the data on page 120, **number 3.75 Part b** of your current text. You will do summary statistics on the variable 'Days of maturity' which should be entered in C1, and construct a boxplot and a stem-and-leaf diagram for this data. Go to **Stat =>Basic statistics =>Display Descriptive Statistics.** In the dialog box select C1 for the variable and click on the **Statistics** button. Make sure that only the boxes for Q1, Median, Q3, IQR, Minimum, Maximum and Total N are selected. Then click **OK.** You should get these items printed out in the session window for this data.
3. Next using **Graph** =>**Boxplot** do a boxplot for the data in column C1using the option for a Simple graph. Print this graph and then save it on your floppy disk as **Daysboxplot**1. Be sure to save it as a graph file using **File => Save Graph As..** Then close this graph.
4. Next using **Graph** => do a stem-and-leaf diagram for the data in column C1 by selecting C1 and clicking **OK.** Print the stem-and-leaf diagram and then save it on your floppy disk as **Daysstemleaf**1.
5. At this point save the project on your disk as Project2. Then print out the session window.

Part Two

For this second part of Minitab assignment you will do some statistical analysis related to Exercise 4.4 Number 4.123 on page 194 of the textbook.
When typing sentences in the session window to explain the statistical analysis, please use good grammar and complete sentences.
1. Enter your name into the session window.
2. Enter the title Age of Corvettes into the light blue box directly below the box **C1**. Then enter the data into the Age of Corvettes columns of the table from Exercise 4.4 Number 4.123 on page 194 into the first (vertical) column of the worksheet. The data should fill the boxes of Column 1 in Rows 1 through 10. Next enter the title Price of Corvettes into the light blue box directly below the box **C2**. Then enter the data into the Price of Corvettes columns of the table into the second (vertical) column of the worksheet. The data should fill the boxes of Column 2 in Rows 1 through 10.
3. Using **Stat** => **Basic Statistics** => **Correlation** find the correlation between the Age of Corvettes and the Price of Corvettes. You will need to enter Age of Corvettes and Price of Corvettes as the variables.

4. Using **Stat** => **Regression** => **Fitted Line Plot**, choose Price of Corvettes for the response variable and Age of Corvettes for the predictor and click on **OK**. Print the resulting graph.

5. Note the value of r^2 from the graph you just printed, and type a sentence into the session window that interpreting the percentage of variation in the Price of Corvettes that is explained by the linear regression equation. Next type a sentence into the session window that describes how useful the regression equation would be in making predictions.

6. Use the regression line equation from the graph to predict the Price of Corvettes that is 10 years old. Type a sentence into the session window that states your prediction.

7. Print out the session window and the graph. ***This assignment is due at class time on Thursday, July 2, 2009.***