Microsoft Excel   **Statistics LAB Project**

If you choose to do this with Excel, great! If not, "by hand" is fine. Show your work!

1.   The UCLA Bruins men's basketball team has won a record 11 championships (1964-1965, 1967-1973, 1975, 1995). The data below shows a win streak of 7 years in a row under legendary coach John Wooden.

   (a) Enter the chart and have the software compute each of the following statistics for the UCLA team and for their opponents. Have the software round the mean and standard deviation values each time to the nearest tenth. Clearly label each numerical statistic.

   Mean
   Mode   [Value: 24 points]
   Median
   Range
   Standard Deviation

Year	UCLA Points Scored	Opponent's Score
1967	79	64
1968	78	55
1969	92	72
1970	80	69
1971	68	62
1972	81	76
1973	87	66

   (b) For this same data set, have the software make a double line graph, with a legend to make clear which broken line represents UCLA's points total and which broken line represents their opponents' scores. Clearly label both axes.

                                                        [Value: 16 points]

   Include a printout with your name, the chart, all 10 numerical statistics, and the double line graph.

2.   Input the following three data sets and have the software make the appropriate statistical graphs. **Include 3 printouts, one for each chart and statistical graph. Your name must appear on each printout.** Clearly label axes, include a title, and include a legend when appropriate.

   (a) Bar graph — Poll the entire class on their favorite candy bar, Barnesville (or home) area restaurant, sport, music category, car color, or something else. Organize the data you gather in the frequency chart below, enter the frequency chart into the Excel spreadsheet, and then use Excel to make a bar (or column) graph.

Favorite _____	# of students

                                                        [Value: 20 points]

(b) Pie chart (Circle graph) — Input the chart into an Excel spreadsheet, and then have Excel make a pie chart (2- or 3-dimensional) for the following budgetary information.

Category	Amount
Tithes & Offerings	$ 300.00
Home	700.00
Car	400.00
Food	400.00
Education	350.00
Savings	250.00
Other	100.00
	$ 2,500.00

Add percents to each "slice" with rounding to the nearest percent.

[Value: 20 points]

(c) Histogram — The following data comes from a local college computer center's troubleshooting records on the time interval between major computer "downs". We show all the data, plus a frequency chart with 6 classes. Complete and use the boundaries (in hours) for these classes along with the corresponding frequencies in an Excel spreadsheet, then have Excel make a histogram. Remember to close the gap width after you make a column (bar) graph, and clearly label each axis.

Time between Computer Downs (h)

6	5	3	7	4	8	10	3	4	5
9	8	3	5	7	4	7	6	7	10
7	3	4	5	5	6	6	8	6	3
3	8	10	5	12	9	6	11	3	8
11	12	14	7	13	14	7	8	11	14

Notice that we are using a class width of 2 since $w = \dfrac{11}{6} \approx 2$.

Time (h)	Boundaries	# of "downs"
13 – 14		4
11 – 12		5
9 – 10		5
7 – 8		13
5 – 6		12
3 – 4	2.5 – 4.5	11
		50

[Value: 20 points]

This project is worth 100 points and due no later than _____ .

Do your best! Live and learn!