

Statistics- Semester Project:



In The Beginning... QUALITY

You are tasked with something that should reflect your BEST WORK ! This is to be treated as if you were going to apply for a job using this project as an example of the quality of your work. Sloppy, messy, illegible work will definitely be graded down. Treat this like a take home test.

Then, there's Data

Date Due: _____

You will be asked to gather a set of data that contains **at least 50 elements**. In the first deadline, you will be asked to describe the nature of the data and cite your resource and to describe why you feel this data would be of any importance. You may use any of these resources:

Newspaper, almanacs, magazines, media guides, the Internet, a book (other than your text) or you may conduct your own survey/poll*.

(* You are free to produce your own data but you must be prepared to defend that the sampling technique was a simple random sample and you will need to see MR. M before doing any polling.)

Once you have collected the data, you are the Statistician and your first job is to organize the data. You will need to use approved methods for organizing data. The tables, or lists must be neat and easy to read. All labels and headings must state what the item is and the units of measurement used (ie: cost of tuition at public four year schools (\$), Amount of Food used by restaurants in San Diego County (lbs.)). See the directions for writing the report for all of the tables, and charts you need to use to display the distribution.

Next, a picture says a thousand words...

You must organize & display the data using each of the following items:

1. A Frequency Distribution Table.
2. Stem plot
3. Box plot
4. Histogram
5. *** One other graphical method of your choice. Choose one you deem necessary to present the information.

Then ... Measures of Center, Shape, Spread

Once you have presented the data in tabular and visual form, you need to analyze it. You will be asked to compute and describe the distribution's three important measures of Center, Shape, and Spread. This means that in this section of the report you will compute, calculate or otherwise describe the following:

Center - Mean, Median, Mode (can be modal class), Mid-Range

Spread - Range, Standard Deviation, Five-number Summary.

Shape - Describe the distribution using the 6 descriptive measures learned in this class.

Each calculation can be done using a spreadsheet, but MUST have a "SAMPLE CALCULATION SHOWING HOW THE COMPUTATION IS DONE" by hand. This MUST Show ALL the steps needed. On the directions for writing the report, there's an example of the Format for each Sample Calculation.

NOW, go to the directions for writing your report !