ESSENTIALS OF COLLEGE MATH

UNIT 1 PROJECT – UNIVARIATE DATA

DUE: Friday, February 3, 2016

Overview: Students will conduct a survey using one of the survey types used in class Students will choose a topic of interest to them and collect quantitative data based on that topic. (Topic must be approved by teacher before you begin).

 After collecting data, students will analyze the data and represent the data using various statistical graphs. Students will write a report about their process of data collection along with analysis of data. Finally, students will present data to class. This project will count as a test grade for this unit.

Your project should be typed, double space and in standard 12 point font. All pages numbered. Graphs should be neatly drawn on graph paper (where applicable). You must include at least one computer generated graph.

Your project must include the following:

1.   Cover Sheet (5 points)
     a.   Includes the title of project
     b.   Your names
     c.   Date
     d.   Period
2.   Introduction (20 points)
     a.   Approximately 1 paragraph – employing correct grammar skills (including spelling and punctuation) in paragraph form
     b.   It should answer the following:
          i.   Why did you choose this topic?
          ii.   What population was represented?
          iii.   Which sampling method was used to collect data and how data was collected?
3.   Your project should include the following graphs: (at least one should be computer generated) (30 points). All graphs should be neat, colorful, accurate & properly labeled.
     a.   Frequency Distribution table (used the same increments as the histogram.)
     b.   Histogram
     c.   Stem & Leaf Plot
     d.   Pie Chart (using the same intervals as your histogram and frequency chart)
     e.   Box & Whisker plot

4.   Your project should include the following values. These values should be typed and included in your presentation. (10 points) (You may use an excel worksheet to display and calculate this data). You must show the calculations used to obtain this data.
     a.   The collected data in a neat and organized manner (must be computer generated)
     b.   Mean, Median, Mode
5.   Conclusion written in paragraph form (10 points)
     a.   Which graph type best displayed your data & why
     b.   Which measure of central tendency best described your data and why?
     c.   What did you learn from the data about your topic

6. Video Presentation (20 points) (This is in addition to your written presentation). Each group must create a 3 minute video presentation. You may do a youtube video or an automated powerpoint
    a. Videos must be uploaded to youtube using the privacy setting and then the URL will be sent to me.
    b. The 3 minute presentation must contain
        i. A picture of you conducting the survey
        ii. A picture of the various graphs in your project
    c. It must answer the following questions:
        i. Why you chose this topic,
        ii. Which sampling method used
        iii. How was the data collected
        iv. What is the population of the data
        v. The mean, median, and mode
        vi. What did you learned from this data about your topic

Rubric for Statistical Analysis Project:

Names: _____ _____

Deadlines	Date Due	Teacher's Signature
Pick a Partner	9/1	
Pick a topic	9/2	
Data Collected	9/7	
All graphs completed	9/8	

Rubric	

Typed Cover Page (5 points)
    a. Includes the title of project
    b. Your names
    c. Date
    d. Period
(minus 1 point per missing item)	

Introduction (20 points)
    a. Approximately 1 page – employing correct grammar skills (including spelling and punctuation) in paragraph form
    b. It should answer the following:
     i. Why did you choose this topic?
     ii. What population was represented?
     iii. Which sampling method was used to collect data and how data was collected?
(minus 5 points for any missing item)	

Graphs at least one computer generated. (30 points). Neat, colorful & properly labeled a. Frequency Distribution table (used the same increments as the histogram.) b. Histogram c. Stem & Leaf Plot d. Pie Chart (using the same intervals as your histogram and frequency chart) e. Box & Whisker plot (Each graph is worth 6 points. Points subtracted if graph is inaccurate)	

Data (10 points)
    a. Display of the collected data is a neat and organized manner
    b. Calculations of mean, median, and mode	

Conclusion (10 points)
    a. Typed, grammatically correct
    b. What did you learn
    c. Which graph best displayed your data and why
    d. Which measure of central tendency best describes your data & why?	

Presentation (power point, youtube video, prezzi) (20 points)
    1. Topic
    2. Why did you choose this topic
    3. Pictures of you taking the survey
    4. Which sampling method did you use?
    5. How did you take your sample?
    6. Graphs in your presentation
    7. What did you learn	

Meeting All Deadlines and returning this sheet (5 points)	