AP Statistics Summer Assignment

All students who are planning on taking AP Statistics starting in September must complete this assignment and submit it for grading at the beginning of school. There will be a quiz on the preliminary chapter at the beginning of school. Also, it is mandatory that all students in AP Statistics own a graphing calculator; a Texas Instruments TI84 or TI84-Plus is recommended. If there is some hardship that will prevent you from purchasing a graphing calculator, please contact Miss Carr or Mr. Smulligan as soon as possible. A Texas Instruments TI89 is also acceptable; so if you already have one, or need one for another class, do not buy a second graphing calculator. Students must have their calculator with them when school starts.

1. Read Chapter P, pages 3 – 33, in the textbook, complete the Chapter P Reading Guide, and do problems P.2, P.4, P.5, P.8, P.10, P.12, P.13, P.17 (parts a – c). The document titled "AP Statistics Summer Assignment Chapter P" is a 30-page document. Please do not use school resources to print Chapter P. Instead, you can save the document to your own device (phone, tablet, laptop, etc) or print it at home.

2. Familiarize yourself with your TI-84 Calculator. Use the instruction manual (and Google) as a reference and make sure you can:

   A. Enter and edit lists
   B. Sort a list in ascending and descending order
   C. Find the sum and cumulative sum of a list
   D. Calculate a value using the factorial symbol (!)
   E. Find mean, median, range and quartiles of a data lists
   F. Find the standard deviation
   G. Graph dot plots, line plot, histograms and box plots
   H. Graph a linear, quadratic and polynomial functions

When working on parts A – G on the list above, use the list of data show in table P.2 found on page 33 in the textbook.

We will be checking our email regularly throughout the summer. If you have any questions about this assignment, send them to dcarr@lowell.k12.ma.us and/or psmulligan@lowell.k12.ma.us.

Introduction (pp.5-6)

1. Statistics is…

2. Data are…

3. Probability is…

Data Production: Where Do You Get Good Data? (pp.6-11)

1. Available data are…

2. Surveys are..

3. The difference between sample and population:

4. The difference between a survey and a census:

5. In an observational study, we ..

6. In an experiment, we…

7. If we want to understand 'cause and effect' we use a ….

Data Analysis: Making Sense Of Data (pp.12-21)

1. Individuals are…

2. A variable is…

3. When given a data set, the key questions to ask are:

      a. Who:

      b. What:

      c. Why:

      d. When, where, how, and by whom:

4. The difference between a categorical variable and a quantitative variable. (Give an example of each.)

5. Define distribution.

6. What is a side-by-side bar graph best used for?

7. What type of data is a dotplot used for?

8. When would it be better to use a bar graph instead of a dotplot?

Probability: What Are the Chances? (pp.21-23)

1. What is the big idea of probability?