

## AP Statistics Summer assignment - ([dstephens@bcps.org](mailto:dstephens@bcps.org))

*Statistics books were given out the last two weeks of school.*

*If you plan on purchasing a new graphing calculator over the summer, please contact me first.*

Students should come to the 1<sup>st</sup> class ready to ask questions about the reading/videos and/or the assigned problems.

A test will be given on Chapter 1 during the second week of class.

Please keep in mind that most of chapter 1 is review.

*The following assignment is due on the first day of class. Please note the assignment is in three parts.*

**Part I:** Read Chapter one of your textbook and complete the following problems:

1.1, 1.2, 1.5, 1.6, 1.8, 1.9, 1.10, 1.12 (*a* and *b* only), 1.13

1.16 through 1.19, 1.20 (*a* and *b* only), 1.23 through 1.25,

1.31 through 1.36, 1.40, 1.41, 1.44 (*a* and *b* only)

1.45, 1.46, 1.48, 1.55, 1.60, 1.63, 1.65

<http://www.apstatsguy.com/>

**Part II:** Go to the above website and watch/take notes on the following videos:

Summer Video One, Two, Three, and Four

Unit one videos 1, 2, 4, 7, 12, 13, 14

**Part III:** You will need to create an 8.5 by 11 poster outlining the important vocabulary for summer video one and two.

**Below are topics you will be tested on:**

**Topics:**

Random Variables (Quantitative/Qualitative)

Population (parameter) /Sample (statistic)

Quantitative Random Variable (Discrete/Continuous)

Type of graph to make for a given set of data

Histogram/Relative frequency/OGIVE

Create and interpret a bar graph

Create a dot plot; stem plot; and histogram

Create and interpret a box plot (by hand/TI-graphing calculator)

Side by side boxplots: Create and Interpret

Calculate outliers

Calculate the mean, median, standard deviation, and 5 number summary on a graphing calculator

Mean, Median , and Mode

Calculate and interpret Standard Deviation

Identify and interpret the 5 number summary

Skewed data/bimodal data/gaps in data/outliers in data

Describe a distribution using **Shape, Outliers, Center, and Spread (SOCS)**

Comparing two distributions using **Shape, Outliers, Center, and Spread (SOCS)**

When to use Mean/Standard Deviation or Median/IQR

Shifting/scaling data (Linear Transformations): What happens to summary statistics?